UNITED NATIONS

Convention to Combat Desertification

Distr.
GENERAL

ICCD/COP(4)/AHWG/3/Add.2
23 February 2001

Original: ENGLISH/FRENCH
ENGLISH ONLY

CONFERENCE OF THE PARTIES
Fourth session
Ad Hoc Working Group
Inter-sessional meeting
Bonn, 19 March - 6 April 2001
Item 2 (a) of the provisional agenda

SUMMARIES OF REPORTS SUBMITTED BY AFFECTED LATIN AMERICAN AND THE CARIBBEAN COUNTRY PARTIES

Addendum

CONTENTS

	Page
Guyana	2
Haiti	5
Jamaica	13
Mexico	15
Nicaragua	22
Panama	29
Paraguay	35
Peru	37
Saint Kitts and Nevis	41
Saint Lucia	46
Saint Vincent and the Grenadines	49
Uruguay	51
Venezuela	52

GE.01-60583 (E)

GUYANA

Desertification is the degradation of land caused primarily by human activities and climate variations which will eventually lead to the reduction or loss in its biological or economic productivity. Over 250 million people are directly affected by desertification, and some one billion people in over one hundred countries may experience its economic, social and environmental consequences.

The international community has long recognized that desertification is a serious threat to many countries of the world and in an effort to address this problem the Conference on Desertification in 1977 adopted a Plan of Action to Combat Desertification (PACD). In 1992, when the United Nations Conference on Environment and Development (UNCED) convened in Rio de Janeiro, Brazil, the question of how to deal with the issues of land degradation was on the agenda, since it was still of serious concern to most countries of the world. The Conference, therefore, requested the General Assembly of the United Nations to prepare by June 1994, a Convention to Combat Desertification. As a result, the UNCCD came into force in December 1996. Guyana became a Party of the Convention upon its ratification on 24 September 1997.

The implementation of the UNCCD is coordinated by the National Climate Committee, functioning as the National Coordinating Body (NCB). It has responsibility for coordinating all activities relating to climate change, ozone depletion and desertification and is comprised of representatives of the main institutions dealing with these issues. The NCB operates under the purview of the Office of the President. The President of Guyana has the mandate for environmental issues including climate change and desertification. The Office of the Adviser to the President on Science, Technology and Environment is the National Focal Point and is responsible for coordinating the preparation of the National Report.

Guyana, richly endowed with natural resources, is dominated by its forests, mostly tropical moist evergreen rainforests, covering over 75 per cent of the country's 215,000 square kilometres and which constitute a very significant resource not only for this country but also for the world. The forests constitute a part of the Amazon Basin, and contain a wealth of biological diversity including several unique species and 144 recorded endangered wildlife species. The abundant natural resources include substantial mineral deposits notably bauxite, gold and diamonds. These timber and mineral resources existing within the interior of the country are highly extensive in nature, and to a great extent inaccessible because of undeveloped infrastructure.

In 1998, the Government of Guyana articulated and implemented the Economic Recovery Programme after a protracted economic decline in the 1970s and 1980s, accompanied by an intensification of poverty in society. The main strategy based on a major change in the economic policy was to create favourable investment opportunities for the private sector to utilize the country's natural resources. The new Government of 1992 embarked on a major expansion programme in the agriculture, forestry and mineral sectors and a rehabilitation of the infrastructure to support this programme, which has been pursued within the context of sustainable development and poverty eradication.

The increase in activities in the agricultural and natural resource sectors without effective regulatory and monitoring mechanisms, can lead to unsustainable practices such as over harvesting of timber resources or over utilization of components of biodiversity, which have long-term destructive potential and can inevitably lead to land degradation. These activities also have implications for environmental management.

In 1994, the Government prepared an National Environmental Action Plan (NEAP) to identify the major environmental problems and to formulate appropriate policy measures to deal with these problems. The document identified the major environmental issues as coastal zone management, waste management and pollution control, natural resources management and mining. Land degradation has been identified with some of these environmental issues. The NEAP is currently being reviewed through a participatory process.

There are many institutions in the country that have some responsibility for environmental and natural resources management. In recognizing the need to have one single institution with responsibility for environmental management, the Government introduced a new legislation, the Environmental Protection Act No. 11 of 1996 to create the Environmental Protection Agency (EPA). The EPA has the legal mandate to provide for the management, conservation, protection and improvement of the environment, the assessment of the impact of economic development on the environment and the sustainable use of natural resources. Environmental Impact Assessment (EIA) conducted for all major projects have to be approved by the EPA.

Although it is the general perception that land degradation is not a major environmental problem in Guyana, cognisance should be taken of land degradation activities and climate variability. It is, therefore, imperative for Guyana to share experiences on land degradation and mitigating the effects of drought with other countries. In this regard, the UNCCD can be seen as the most appropriate mechanism for the exchange and sharing of information.

Since land degradation is not a priority issue, strategies to address it should be integrated into those designed to address issues of biodiversity, wildlife management, climate change, and coastal zone and natural resources management. In an effort to address these issues, the Government has been increasingly promoting participatory decision-making and a policy to conserve and sustainably utilize the country's natural resources in keeping with Guyana's commitment to international conventions, treaties and other relevant instruments. Policies, strategies, action programmes and laws are, therefore, being prepared and implemented for the sustainable utilization of natural resources and the maintenance of environmental quality, which can also support the implementation of the UNCCD.

The development of a draft National Development Strategy represents the highest level of national planning in the country. It is an integrated document outlining the national strategy and policy in a number of priority areas including agriculture, environment, forestry, fisheries, mining, tourism and the eradication of poverty. The Strategy serves as a framework for policy and planning in the respective sectors of the economy.

The National Strategy for the Conservation and Sustainable Use of Guyana's Biodiversity was completed in 1997 through a participatory process, and articulates the national policy and strategy relating to the study, conservation and sustainable use of biodiversity. The National Biodiversity Action Plan (NBAP) is a product of the National Strategy proposing a total of 32 projects and other activities under broad programme areas. The mobilization of financial and technical resources are critical to the implementation of the Action Plan. The EPA has also been given the legal mandate for the conservation and management of the country's biological diversity.

In the forestry sector, the Guyana Forestry Commission has formulated a number of policies and plans to improve management and conservation of forest resources in order to contribute to sustainable development, optimum use of the land resources and conservation of biodiversity. The draft National Forest Plan of July 1998 takes into consideration the National Forest Policy of 1997, and proposes a range of activities under five broad programme areas including land use, forest management, research and information, forestry training and education, and forest administration and governance. Guidelines for the preparation of Forest Management Plans and a Code of Practice for Forest Operations have also been prepared by the Guyana Forestry Commission. The revised legislation governing forestry has been forwarded to the Cabinet Sub-Committee on Natural Resources and the Environment for reviewing before being presented to Cabinet.

A non-governmental organization, the Forest Producers Association, was formed by the forest industry to promote and develop the interests of the forest sector and to collaborate on activities such as training, information, public awareness and institutional development.

Forestry research focusing on sustainable forest management and the conservation of biodiversity are being undertaken by a number of institutions including the Tropenbos-Guyana Programme and the Iwokrama International Centre for Rainforest Conservation and Development.

In order to improve the management of Guyana's natural resources in a sustainable way, a Natural Resources Management Project (NRMP) commenced in 1994 under a Technical Cooperation Agreement between the Governments of Guyana and Germany.

The project is intended to support decision-making on natural resources management by supplying reliable and accurate information to national institutions. The project will develop a database on natural resources, establish land-use planning procedures, prepare policy guidelines and legislation for natural resources management and strengthening institutional capacity.

The main activity in the wildlife sector is harvesting for the export trade and local consumption as exotic meat. There has been no significant management of wildlife resources in the country. The Wildlife Division of the Office of the President which regulates the wildlife trade does not have the necessary capacity to function effectively. However, wildlife management and protection is now being initiated in the country. The World Wildlife Fund - Guianas Forests and Environmental Conservation Project (WWF-GFECP) is collaborating with the Marine Turtle Conservation Society of Guyana to study and monitor four species of marine

turtles at Shell Beach in the Pomeroon. It is also funding a project on the development of a species management plan for wildlife trade in Guyana which is to be implemented by the EPA.

A draft fisheries Management and Development Plan for the period 1994-2004 has been prepared and is yet to be finalized. Fisheries resources utilization in Guyana is regulated under some four different pieces of legislation, all of which are outdated and inadequate. Revision of the existing legislation and finalization of the Fisheries Management and Development Plan will provide a strong basis for the management of fisheries resources.

In the mining sector, the major environmental impacts are pollution and land degradation. However, with the introduction of Environmental Impact Assessment (EIA), the initiation of public awareness programmes and regular monitoring by the Guyana Geology and Mines Commission and the Environmental Protection Agency, it is expected that environmental impacts will be minimized.

In the agriculture sector, the Ministry of Agriculture has a major responsibility in ensuring food security and efficient management of water resources for agricultural production. It has recently implemented the Land Administration Project which will effectively address the land tenure system in Guyana.

Financial resources required for the implementation of all sustainable development projects have been obtained from donor agencies, international financial institutions and through bilateral arrangements. The Government has also contributed significantly to these projects.

The NAP process will have to take into consideration relevant aspects of all the national policies and plans that focus on sustainable development and are related to the implementation of the UNCCD. The NCB will be responsible for coordinating the activities for the preparation and implementation of the National Action Programme (NAP). The NAP process will involve national awareness activities on land degradation and drought and collection of information on the utilization and management of natural resources, including land resources, especially by women and youths, projects considered relevant by local stakeholders and the use of traditional knowledge to combat land degradation.

The elaboration and implementation of the NAP which would require a substantial amount of financial and technical resources would necessitate that the Government seek assistance from international financial institutions including the Global Environment Facility, the Global Mechanism and the United Nations Development Programme.

HAITI

1. INTRODUCTION

On the grounds of its physical features as described by geographers and geologists, its geographical situation in the Caribbean archipelago, its climate, its size and the remarkable population explosion it has experienced, much of the Republic of Haiti should be classified as a protected site, well worthy of its place on the map of the world.

1.1. Geographical situation and land area

Situated between the Caribbean Sea and the Atlantic Ocean, Haiti occupies one third (27,750 km^2) of the territory of the island it shares with the Dominican Republic. The island was divided into two republics in 1696. Haiti is situated in the western part and the Dominican Republic in the eastern part, with a total area of 48,734 km^2. Haiti has a coastline of approximately 1,500 km and comprises five small adjacent islands with an area of 950 km^2. A quarter of its territory is made up of plains (situated below an altitude of 200 metres). More than a third of its territory lies between 200 and 500 metres above sea-level, 40 per cent above 500 metres and 17 per cent above 800 metres.

1.2. Climate

Haiti has a varied climate, sometimes characterized by severe droughts, hurricanes and periods of flooding. During the last part of the twentieth century it suffered several natural disasters, the most serious of which were the following: Hurricane Hazel in 1954, Hurricane Ella in 1958 and a whole series of hurricane disasters between 1963 and 1967 and between 1977 and 1999. Average annual rainfall is around 1,400 mm. There are generally four seasons: spring and autumn represent the rainy seasons while summer and winter make up the dry seasons. On average, Haiti suffers a drought one year out of every five. It is a subtropical country with an average annual temperature of 24 to 28 degrees Celsius, with a daily thermal range of between 8 and 12 degrees. Over a long period of years the highest temperature recorded has been 37.8 degrees and the lowest 15.2 degrees.

2. STRATEGIES AND PRIORITIES ESTABLISHED IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT PLANS AND/OR POLICIES

2.1. Development of strategies

From the first regional seminar on action to combat desertification, held in Nouakchott in 1984 under the aegis of the Convention establishing a Permanent Inter-State Committee on Drought Control in the Sahel (CILSS) and the Club du Sahel, until Haiti's ratification of the United Nations Convention to Combat Desertification (CCD) in September 1996, regional anti-desertification strategies have steadily developed and been adopted by affected country parties in the light of their specific characteristics.

2.2. Implementation of sustainable development strategies in Haiti

No global approach to action to combat desertification has so far been put into effect on the ground in Haiti. Traditional farming systems are outdated but nevertheless remain predominant. Land use is characterized by an amalgam of conflicting farming methods and crops. The various forms of civilization (indigenous and Western) have shaped the management and ambivalent development of agricultural land. They have consequently given rise to an ambiguous situation with regard to choice of technologies. Thus, the exploitation of natural resources, instead of conforming to economic considerations, is subject to several types of socio-technical and economic-cultural constraints juxtaposed against a set of exo-endogenous factors, contributing to the deterioration of the natural environmental balance. The management

of natural resources which determines the methods of exploitation of the various ecosystems of a particular territory falls within this contradiction. Thus, any technical or socio-economic innovation beyond the level of traditional social organization naturally comes up against the resistance of the rural world. This resistance is essentially linked to its mode of socio-economic organization, which is constantly at odds with the misconceived modernism imposed upon it.

2.3. Follow-up to the international conventions

Haiti has signed numerous international conventions concerning the environment. The National Action Programme to Combat Desertification (PAN-LCD), which has to be structured and implemented in the context of the CCD, is situated against the background of the evolving concepts of sustainable development and new approaches to the rural world. The programme's objective is to involve it in decision-making so as to avert its withdrawal in the process of natural resources management, including in the relationship with its own development. In Haiti, where ad hoc actions to combat land degradation have been undertaken since 1945, primarily by State agencies adopting interventionist and sectoral approaches, the new approaches to sustainable development did not begin to be publicized within the rural world until after the Rio Summit of 1992. The first step towards its implementation was the establishment of a secretariat with the Ministry of Environment for the definition of national policy on the environment.

2.4. National policy on the environment

The Haitian Government (Ministry of the Environment), with the support of several donors (UNDP, USAID, Canadian International Development Agency, World Bank), together with a number of Haitian specialists from ministries concerned with environmental management, published in June 1999 a Programme of Action for the Sustainable Development of Haiti.

2.4.1. General orientation

This environmental action programme will determine the Government's environmental policy and serve as a strategic framework for the more effective organization, management and coordination of current and future operations in all areas relating to the rational management of the global physical environment. It will identify crucial problems for the rational and sustainable management of resources, facilitate national consensus with a view to the adoption of a common strategy by all participants and set priorities in the various sectors singled out for action. The implementation of the programme will be effected through projects and actions aimed at strengthening the capacity to manage the national environment.

3. INSTITUTIONAL MEASURES TAKEN TO IMPLEMENT THE CONVENTION

3.1. Legislative framework

Since Haiti's period of transition to national independence, when the primary sector was regarded as the principal source of wealth, a whole series of laws relating to the protection of this sector have been promulgated. The first Rural Code of Haiti of 1826, known as the Jean-Pierre Boyer Rural Code, stressed this aspect. Article 23 of the Code stipulated: "It is, in particular, forbidden to fell trees on mountain tops, up to 100 paces from their slope, at the head

or in the vicinity of springs or on river banks. Owners of land containing springs or rivers shall surround the heads of springs and plant the river banks with banana trees, bamboo or other trees capable of retaining freshness". A large number of laws have been enacted in relation to the protection of natural resources. Mention may, for instance, be made of the law on fisheries of 27 October 1978, the laws on hunting and the capture of animals, and the law of 4 April 1983 relating to the creation of national parks and historic sites. With every legislature, numerous laws on the environment are drafted and enacted, even though they may not be well known to the general public, and are applied in action to solve the problem of the overexploitation and degradation of natural resources.

3.2. The Constitution

All Haitian Constitutions since 1801 until our day have stressed the protection of natural resources. The most recent Constitution, that of 1987, contains a series of articles relating to the question of the environment (arts. 253-258). According to this Constitution, the ecological balance must be protected against any practice liable to disrupt it. The Constitution imposes an obligation on the State to protect natural sites, to make the best use of them, and to encourage the development of forms of energy other than wood, such as solar, wind and other sources of energy, with the aim of protecting forestry reserves. The State is also required to establish and maintain botanical and zoological gardens in certain places around the country for the purpose of protecting the environment and promoting the education of the public. The Constitution strictly forbids the importation of wastes of any kind from other countries. The specific task of the Ministry of the Environment is to ensure compliance with all environmental standards, and it is primarily this Ministry which must take the lead in furthering this new approach. It also has responsibility for monitoring international legal instruments, such as the international conventions on the environment, among which the most important are the CCD (signed and ratified) and the conventions on biological diversity and climate change.

3.3. Strengthening national environmental management capacity

This is the first activity falling within the context of implementation of the National Action Programme.

3.3.1. Objectives

The overall objective of this activity is to develop the basic elements necessary in order to improve governance in the area of environmental management and to strengthen the ability of national institutions to plan, formulate and update policy instruments capable of providing adequate legal and institutional support for the successful implementation of environmental activities.

4. PARTICIPATORY PROCESS IN THE FORMULATION AND IMPLEMENTATION OF THE NATIONAL PROGRAMME OF ACTION

Since the Rio Summit of 1992, the concept of the environment has begun to develop in Haiti. Several rural development programmes take account of the need to improve rural incomes and to ensure an essential ecological balance between man and the environment. The protection

of steeply-inclined zones through the development of conservationist agriculture is included within rural development programmes and drainage basin protection programmes, despite implementation difficulties due to numerous land-ownership and economic constraints. The Ministry of Agriculture, acting jointly with the Ministry of the Environment, thus intervenes in the management of land, forest and marine resources, and also in the organization of seminars on biological agriculture, and participates in the execution of the country's sustainable development programme in cooperation with the organizations of the United Nations system, prime among which in Haiti is UNDP. In its task of managing the environment, the Ministry of the Environment tries to establish links with all private and public entities working in any area relating to the environment. In this context, measures geared to the ratification of United Nations conventions fall within its operational framework. The process of implementation of the PAN-LCD in Haiti will depend on the setting-up of basic institutions as recommended by the CCD in line with the provisions of article 7 of annex III, which relates to the particular conditions of the countries of Latin America and the Caribbean. The participatory process also concerns the NGOs engaged in activities relating to the protection and restoration of land and the environment. The involvement of both local and national players in the process of formulating and executing the national action programme is an essential precondition for deriving the greatest possible benefit from the CCD. The implementation of the CCD involves cooperation between several institutional partners and the adequate participation of civil society in solving problems. Thanks to the establishment of the Ministry of the Environment in November 1994, it should be possible to meet this objective since the Ministry constitutes an adequate institutional basis for government policy, placing man at the centre of the development process and at the same time, making him the instrument and aim of the development.

4.1. Information and awareness-raising

The main tool in the implementation of environment policy in Haiti has been the organization of workshops and seminars. The main objective of the workshops is to enable local communities to diagnose the phenomenon of environmental abuse, to think about it together and to suggest appropriate solutions. The formulation of the National Plan of Action for the Environment was the first participatory experiment initiated by the Ministry of the Environment. The "accelerated participatory research method" constituted the basis of the training provided, which enabled 93 community environmental plans to be drawn up, there being a total of 133 communes in the whole country. As part of this policy of raising the awareness of the general public, all environmental programmes comprise several forms of awareness-raising activities: study tours abroad for local elected officials and guidance for local populations; publicity campaigns at the département and commune level; meetings with farmers' associations, women's groups and CASEC directors; symposia to mark the emergence of the desire for a genuine partnership between the Haitian State and the various civil-society entities in achieving a unitary and harmonious approach to environmental protection; seminars to attract the attention of the public in general and investors in particular to the need to participate, each in his own field, in the programme of energy conservation and substitution desired by all, mainly because of its impact on the environment; symposium-exhibition on the subject "Construction industry, environment and health", with the aim of encouraging a debate on the problems relating to the sector and determining alternative courses of action to improve the situation with regard to woodcutting for export; workshops on water management and legislation in Haiti; "March of hope" to increase schoolchildren's awareness of the need to protect plant species and to

contribute to the expansion of forested areas, on the occasion of World Environment Day; workshop on climate change aimed at devising, with the public and private sectors, courses of action for the preparation of a national report by Haiti relating to the United Nations Framework Convention on Climate Change; morning courses on preservation of the ozone layer; courses for activists in the health and environment sectors, in the context of the public information campaign on community participation in environmental sanitation; regional workshop on concerted land and water management in wet mountain areas in the Caribbean islands.

4.2. Environmental education

Apart from actions aimed at strengthening the environmental sector, action in the field of environmental education has mainly taken the form of responses to specific external requests. The most significant achievements have been recorded in the organization of awareness raising courses on the challenges facing action to combat desertification; poster competitions relating to the environment, aimed at schoolchildren and the related public, on the occasion of World Environment Day on 5 June; photographic exhibition on the problems of the Haitian environment and prospects of improving the situation; seminars and training courses for members of farmers' groups. Environmental education has also comprised participation, in cooperation with the Ministry of Education and various private institutions, in the organization of drawing competitions for children on an environmental theme, with the aim of producing a calendar for 1997. It makes use of financial and practical sponsorship and support for symposia and seminars by various ecological organizations, community organizations and socio-professional associations having an interest in the environment. It encourages the development of village sanitation activities by designing banners and T-shirts with environment-related slogans on the occasion of parish fêtes. At every important public event, such as the "tree festival", information meetings are organized and announced on television, the public being encouraged to decorate living trees like Christmas trees rather than cutting down pine trees in the mountains. The projection of documentary films and pep talks on the subject of deforestation continue to be the most important means of raising awareness in Haiti. In the same vein, the authorities are beginning to organize discussions on trees and the environment in order to celebrate the "tree season" and World Environment Day and thereby show young people and the public as a whole the diversity of the country's fauna and flora, alert a broad sector of the population to the country's potential and make them aware of the need to safeguard the ecological heritage.

4.3. Women and the problem of the environment

The United Nations Convention to Combat Desertification (CCD) specifically emphasizes the particular role of women in the sustainable management of the bases of natural existence. In the context of Haiti, in both rural and urban areas nothing can be done without the participation of women. Taking this fact into account, a section on women and the management of natural resources has been provided for in the preparation of the profile report on the desertification of Haiti, with a view to ensuring the participation of women in action to combat desertification. The Ministry of Agriculture, Natural Resources and Rural Development is, for its part, taking a special interest in upgrading the skills and productive capacity of women in the agricultural sector, and in supervision of their traditional activities (sowing of seeds, harvests, bark stripping, conservation, processing of agricultural products). The Ministry of the

Environment is training women in the identification of alternative energy sources in lieu of charcoal and is assisting them to identify and protect drinking water sources in rural areas. Women have undertaken to promote as broad participation as possible in the establishment and development of the capacity of institutions initiating and overseeing environmental protection measures.

5. CONSULTATION PROCESS AND PARTNERSHIP AGREEMENTS WITH DEVELOPED COUNTRY PARTIES AND OTHER INTERESTED ENTITIES

At present, UNDP is responsible for drawing up jointly with the Haitian Government the common country assessment which will serve as a basis for the joint programming and harmonization of programme cycles. This assessment was prepared through a broad process of consultation and partnership. It involved the participation of 17 thematic groups consisting of representatives of the Government, United Nations agencies, donor organizations and civil society.

5.1. The Joint Haitian-Dominican Commission

On the basis of cooperation between neighbouring countries, Haiti is working with the Dominican Republic, its closest neighbour, within a "Joint Haitian-Dominican Commission". A broad cross-frontier programme has been set up by the two countries and receives support from several donors.

5.2. CARIFORUM

Within this entity, another joint commission has done the groundwork for discussion of specifically environmental problems between Haiti and the Dominican Republic. A broad cross-frontier programme has been established by the two countries. From the standpoint of decentralization, stress is laid on a new programming system territorially based on the département. With the ongoing decentralization, the département will be given a form of local government represented by the departmental directorates and local elected officials.

5.3. Partnership system and technical advice from the Ministry of the Environment

The Ministry is cooperating with several other State institutions, to which it provides technical support and advice on various matters relating to the environment. This partnership framework is being extended to other sectors. The Ministry has participated in the western departmental workshop organized by the State Secretariat for Population Matters on the problems involved in "Population and development". It also provides technical support to the various commissions of its Civil Protection Bureau. Together with the Ministry of Education, Youth and Sports, it is contributing to the process of integration of the concept of "Family life, sexuality, gender, population and environment" in school curricula; this project was initiated by the Ministry of Education, Youth and Sport.[1]

---

[1] Taken from the annual report, 1998-1999, of the Ministry of the Environment, pp. 38-39, September 1999.

6. MEASURES TAKEN OR PLANNED IN THE CONTEXT OF NATIONAL ACTION PROGRAMMES

In this context, the Haitian Government (Ministry of the Environment) is taking particular interest in the organization of a National Action Programme to Combat Desertification (PAN-LCD), in conformity with the United Nations Convention to Combat Desertification (CCD) signed by the Government in 1994 and ratified by the National Assembly in June 1996. The specific contribution of action to combat this problem to the overall process will consist in the working methods developed with the various sectors of local and regional communities on the basis of the partnership principles through which the spirit and letter of the Convention provide it with a specific approach to its implementation. Articles 4 and 5 of the CCD oblige affected country parties to undertake a series of measures within a national action programme (PAN) with their partners, on the basis of practical experience. The process of implementing the PAN thus comprises two major phases: establishment of the institutional framework and formulation of the PAN. Each phase is broken down into several stages which maybe concomitant and interlocking, in accordance with an iterative process.

7. FINANCIAL RESOURCES ALLOCATED UNDER THE NATIONAL BUDGET

Most activities aimed at restoring the environment are currently financed in the context of projects or programmes relating to the management of natural resources and local development. This situation is the result of the reorganization of financial mechanisms, which now give priority to multisectoral projects or programmes through multilateral cooperation.

8. EXAMINATION OF BENCHMARKS AND INDICATORS

Given Haiti's situation in the Caribbean region, which is very vulnerable to natural and human-induced phenomena (variability of climate, flooding, landslides, tidal waves, erosion, droughts, fires, earthquakes, hurricanes), it has been classified as a region at permanent and growing risk by the National Committee on risk and Disaster Management. From that time to the present day, despite the deterioration in the country's socio-economic conditions and the development of its vulnerability factors such as environmental abuse and sedimentation of lakes, rivers and coasts, this organization has developed. Since Hurricane George hit the country in September 1998 and as a result of the international technical support missions, the question of disaster prevention and mitigation has become a key item in the definition of priorities for action and cooperation during the post-disaster phase. The national authorities have undertaken to devise a national disaster management plan and to construct a more effective national system. This plan is the result of the coordinated work of several institutions, headed by the Ministry of the Interior, and constitutes the basis for effective ad hoc and long-term intervention. The plan forms part of the commitments and priorities established in the plan of action for the environment.

JAMAICA

1. Overview

Jamaica's National Report to the United Nations Convention to Combat Desertification is concerned with activities done before and after Jamaica acceded to the Convention on 22 November 1997. It forms part of the activities to fulfil Jamaica's commitment under the Convention and specifically to fulfil obligations as set out in Decision 11/COP.1, Decision 5/COP.2 as well as Decision 14 of the 5th Regional Meeting of GRULAC on the UNCCD held in Lima Peru in August 1999.

The Report provides a synthesis of the current state implementation of the Convention in Jamaica, gives an indication of the level of knowledge and awareness and points to a path towards the preparation of a National Action Plan for Jamaica.

The structure of the report takes into consideration the methodological guide prepared by the Secretariat of the Convention as well as the reality of Jamaica with respect to Land Degradation and Drought. It has a total of 36 pages and divided into ten chapters and a small section on the National Action Plan. A report of such a small size makes it impossible to cover all the factors considered necessary. However, the report seeks to address all the fundamental aspects and areas relating to the issues of land degradation and gives a vivid picture of the present state of the totality of activities as regards to addressing these problems.

The report outlines the mechanisms and systems that have been established, the strengths and weaknesses of those systems, and points out some of the actions to be taken in order to improve the functioning and thereby making for effective and efficient implementation of the UNCCD in Jamaica.

The issue of resources is also covered in the report. Jamaica, being a small Island State and being vulnerable to the social, economic and environmental changes now taking place in a globalized economy, must find ways to address the challenges and difficulties associated with land degradation with very limited available internal resources. Jamaica therefore must necessarily use the framework provided by the UNCCD, and through cooperation with partner agencies, to develop effective and efficient measures to address the issue of land degradation and drought, to include the development of a pertinent National Action Plan in accordance with its obligations under the Convention.

The scientific base to guide the National Action Plan process should first be addressed and incorporated, and projects identified in the report such as the determination of sediment loads in rivers, the determination of erosion rates along slopes and the study and characterization of drought must be implemented along with technology to modernize the irrigation section, if progress will be made. Not to be overlooked is the overwhelming need for public education and awareness on issues relating to land degradation.

2. Historical perspective of land use in Jamaica

Jamaica has always depended on the land for economic development. Historically, this is seen in the use of land for agricultural purposes, where large tracts of land were used for monocultural crops such as sugar cane, and in the more recent past in the bauxite sector, as well as for tourism. The land has not always been used within a proper management framework as it relates to environmental considerations. This has led to serious environmental degradation. While land degradation in Jamaica might not be considered as serious as in many other countries around the world, the fact remains that the growing population and the preference of the population for consumer goods, and development using land, will only exacerbate the issue. Due to the extensive use of land without proper management, and without due regard for environmental protection, there has been a resulting reduction in the productive capacity, and the loss of essential nutrients from soils in Jamaica. This is evidenced by the ever-decreasing yields of large-scale crops such as sugar, banana and coffee. In many cases, this has led to the abandonment of large areas previously under cultivation and consequently re-enforcing the problem of land degradation.

As the evidence in the report shows, land degradation is an existing and real problem in Jamaica. With an Island of approximately 11,000 square kilometres in area, and a population of nearly 2.5 million and growing, the demands on land as a resource is expected to increase. With this in mind, and considering the historical facts of the rate of degradation in Jamaica, the issue must be addressed immediately. Failure could only mean drastic intensification of the problem, leading unquestionably to more serious future problems.

Jamaica, being a small island state, with serious limitation in natural resources, needs to survive in a new globalization process. With a population that is constantly demanding more and more consumer products, Jamaica must address the question of land use, protection and sustainability. Addressing the last of these three issues, automatically addresses the first two, by extension therefore, it could be said that sustainable development could only be achieved through addressing the problems of land degradation in a scientific, systematic and planned way. This report therefore highlights in details these issues and points to probable solutions in dealing with those issues.

Chapter 2, subsection 5, of the National Report deals with the issue of drought. It should be borne in mind that the water resources agency of Jamaica is of the opinion that there are adequate water resources in Jamaica. Such a fact however does not negate the reality that prolonged dry spells and recurring drought are a regular pattern of the country's climate. The occurrence of these prolonged dry spell influence social behaviour, the political process and economic development. Although the Government has taken a series of measures designed to address this issue, as the report highlights, Jamaica still faces significant and recurring instances of the non-availability of water in many areas of the country for domestic, agricultural and commercial use. It is clear therefore, that drought significantly impacts on the life of the country. As is the case of land degradation, a systematic and scientific approach must be taken to deal with the question of drought. It should also be mentioned that as indicated in the report, the establishment of early warning systems, strengthening of the meteorological services and disaster preparedness agencies are actions that must be taken, and which would help water managers, make more strategic water storage and distribution decisions.

3. Conclusion

The issue of drought and the development of a proper systems and mechanisms to deal with it is fundamental to the country as a whole. This is due to the fact that it affects the everyday lives of every individual in the affected areas. As a matter of fact, the situation is of such critical importance that, as seen from the report, the Government found it necessary to establish a Ministry of Water, which must address the issue of drought as one of its key responsibilities.

It is not difficult to see the relationship between the drought and land degradation. As the report indicates, some of the most degraded areas are those which suffer from prolonged drought.

The approach must therefore be a comprehensive one which address both the question of drought and land degradation, while taking into consideration the relevant sectors and stakeholders. Drought in Jamaica starves the land of water, brings about instability, economic losses, increases the level of poverty and creates social and economic alienation. These are tremendous challenges for a small island country with limited resources and Jamaica must therefore look towards the framework provided by the UNCCD and through cooperation with partners to address these issues.

MEXICO

I. STRATEGIES AND PRIORITIES ESTABLISHED IN DEVELOPMENT POLICIES

The national expositions of policy and strategies for the social and economic development of Mexico settle down by means of the National Plan of Development (PND), that one designs every six years. From the PND are derived institutional, regional, sectorial and special programmes, that are necessary, in a participation frame and consults public of the diverse social groups interested in each subject.

The Plan of Action to Combat to the Desertification in Mexico (PACD-Mexico) was elaborated in 1993-1994, reason why their expositions were incorporated in different emanated sectorial programmes from the National Plan of Development 1995 - 2000. From the PND 1995-2000, 32 sectorial, institutional, regional and special programmes are derived, all of them are in operation. By their entailment with the PACD the following ones are mentioned:

Programme to Surpass the Poverty

Programmes Farming and of Rural Development

Programme of Environment

Programmes Forest and of Soils

Programme Hydraulic

Other closely tie national strategies to the land degradation exist, like are General Ecological Ordering of the Territory and the Regional Orderings, the approach of Regional Development that diverse Secretariats of State have been implementing jointly for the integral attention of high-priority regions and the figure of Declaration of Droughts that allows to accede to the resources of the National Fund of Naturals Disasters (FONDEN).

As it can be appraised, the policies of economic and social development of Mexico have incorporated specific programmes that contribute, in the general to establish the transit towards the sustainable development, incorporating of specific way strategies and actions to combat the land degradation and to mitigate the effects of the drought, as it institutes the United Nations Convention to Combat Desertification (CCD). Although has been an important advance in the generation of specific mechanisms of popular participation, greater access to the information and the adoption of the participative planning at local level for the application of specific projects; nevertheless, not always the principles of the Convention are totally boarded by the action of the public sector. That is to say, it is necessary to reinforce the congruency between the fight against the sectorial lands degradation and strategies that attend different edges from so complex phenomenon.

II. INSTITUTIONAL MEASURES ADOPTED TO APPLY THE CONVENTION

In answer to the recommendations established by the Convention, the Mexican Government entrusted to the Ministry of Environment, Natural Resources and Fisheries (SEMARNAP) the coordination of fight against the desertification in the country. Within the SEMARNAP, the General Direction of Restoration and Conservation Soils (DGRCS) belonging to the Undersecretary's office of Natural Resources, assume the functions of National Coordination Body.

The DGRCS is an administrative unit with own legal personality and legal capacity to celebrate contracts and agreements with institutions and organizations of the public, private and social sectors and only require consent of the holder of the SEMARNAP. Within the framework of the budgetary lineaments and ceilings of the Budget of Expenses of the Federation, DGRCS prepares his own annual budget and it counts on his own administrative unit, but without total financial autonomy for the application of its specific resources it needs authorization for certain headings of the public cost, with fiscal resources or originating resources of external credit.

Their functions are based on the attributions that to him confers the Internal Procedures of the SEMARNAP sent by the President of the Republic and that of form concise talks about the protection, sustainable development and restoration of soils. The DGRCS has a normative character eminently, but it can apply operative projects.

The institutional structure of the DGRCS includes 40 civil employees and 132 employees of support, headed by a General Director, who in addition is the Focal Point of the CCD in Mexico. In which it concerns material resources account with computer and telecommunication equipment, in addition to transportation and office equipment.

The DGRCS counts with resources of the governmental budget to carry out their functions. The resources are destined to the administrative expenses, of communication and transfer of the personnel. They cover the works with promotion, planning, follow up and evaluation. The resources of investment for execution of projects operated by the DGRCS with the purpose of preventing or of resisting the lands degradation are tie to diverse programmes.

Additionally, to assure the participation the diverse sectors that must be involved in the design, instrumentation and evaluation of plans, policies and projects against the lands degradation, it was created in 1996 a Consultative Technical National Council of Solis Restoration and Conservation (CONAS), that includes representatives of diverse sectors. The operation and performance of the CONAS have been quite irregular; their sessions have been little and the participation of some representatives is deficient. One of the causes of this badly operation could be the lack of legal foundation for the establishment of the CONAS.

The DGRCS counts on access to diverse databases and information generated by itself, or by other public dependencies. Also it counts on telecommunications through Internet, Intranet and WEB is counted on page. In addition it has been designed and developed a Network in Soils and Fight Against Desertification (RISDE) that allows the users to in line make consultations on diverse aspects like: bibliographical technologies, cards, official publications, organizations, documents, laws and agenda of qualification.

Although the creation of the DGRCS, means a measurement of institutional strengthening in the control to the degradation of lands, the ample range of organizations that must be involved in the subject has implied the necessity to generate and to take advantage of spaces integrated attention that are originated in the coordination agreements.

With the purpose of fortifying the local institutions the federal government has given to a fort impulse to the decentralization in different scopes of the public management. In the sectorial items that they concern to the fight against the degradation of lands it is remarkable the decentralization in the matter of fight against the poverty and in the farming sector.

The decentralization has brought like consequence a strengthening of the local institutions, not only the governmental ones but also of the social organizations, specially NGO's, that by their experience about of in the regional problematic and the participative schemes has represented a valuable link between the programmes public and the communities and organizations in the rural sector. Nevertheless the local institutional capacity requires still more to be strengthened, mainly in the municipalities, to reach a level of management much more efficient and near the people affected by the lands degradation. The training and organizational fortification for the creation or consolidation of local capacities must in addition count on specific budgetary resources for such aim.

During and after the processing of the PACD several analyses of congruency with the purpose of identifying synergies and the complementariness with other strategies and plans have been made that they have to do with particular aspects of the fight against the degradation of lands. This congruency well has been identified and is what allows that the application of the

PACD is supported by diverse programmes and projects. Additionally, the principle of the CCD of participation and "bottom-up" approach are present in many of the effective programmes and specific mechanisms have been created to favour it. Nevertheless, the PACD clearly is not identified as a strategic frame in the national level of planning, but that rather is inserted like a component of the programmes and strategies related to the conservation of natural resources; like as fights against the poverty; productive improvement, and more recently in attention to natural disasters.

From the processing of the PACD in 1993-94 there have been important changes in the country, reason why at the moment it is in revision process and during the 2000 it will be updated to incorporate the expositions of the diverse groups of actors and to fortify the elements of synergy with other plans and strategies.

The links of the PACD and the present actions for the fight against the degradation of lands with the Programme of Regional Action occur from the basic premises and the intentions nouns in which the regional strategy rests, but they are translated clearly in actions to develop in each one of the Areas of Programme of the PAR. In individual, Mexico within the framework develops some projects of the PAR: one of them is the National Information Network and the other project is of Monitoring and Evaluation of the Desertification, in which also Brazil and Chile participate.

The legal frame to the CCD and its application are contained in diverse legal orderings, that include 3rd Article Constitutionalist, the General Law of the Ecological Balance and Protection to Ambient (LGEEPA), National Water Law, Forest Law, Agrarian Law and different regulations and norms. From 1996 to 1999 there have been important adjustments to the legal frame and these are expressed in the reforms to the LGEEPA, Forest Law and its National Water Regulation and Law. An important element that it has been common in the adjustment of the legal frame is the extension of the spaces destined to the social participation and the right of the individuals to the information.

In general terms, the institutional development has meant a fortification for the official attention of the fight against the degradation of lands; nevertheless, it is necessary to mention that the DGRCS in their quality of National Coordination Body must be fortified to exactly fulfil their paper of catalyst of the subject and to reinforce their existing capacity for the harmonization of programmes and projects with the PACD and the dispositions of the CCD. It is necessary also to redouble the actions of strengthening of the local institutions, as much those of governmental character as the social organizations and very specially the communitarian institutions and mechanisms that can make a significant contribution to the fight against the degradation of lands.

III. PARTICIPATIVE PROCESS IN SUPPORT OF PREPARATION AND THE APPLICATION OF CCD

The Plan to Combat to the Desertification in Mexico (PACD-Mexico) was elaborated between 1993 and 1994, during the phase of negotiation of the CCD. The process by means of which the PACD was processed summoned to diverse sectors, being well-known the

predominance of the governmental organizations and of the academic sector, whereas, numerically, the social organizations had a little participation although their contributions were determining for the identification of problematic and alternative regional.

From the ratification of his adhesion to the CCD, in 1995, the Mexican government has made different events from national or regional character on desertification, to favour the participation of all the sectors. Many of these events have been generated around the academic institutions and of investigation.

In 1997 one prepared an ample campaign of sensitization and awareness that by the lack of sufficient budget, an approach generalized towards all the civil society had. The campaign included the production of cartels, triptychs, a travelling exhibition and a video. It is important to clarify that the objective of the communication campaign went the one to make know the population the causes and consequences of the desertification and the participation of Mexico in the CCD. Regrettably, it did not have a suitable pursuit about the categories of actors who benefited from this campaign.

At the moment, the communication for awareness and sensitization become through the mechanisms of social participation instituted (Council and Committees) in which participate representatives of different social groups. Therefore, one has occurred to know the creation the CCD the organizations of the civil society with special emphasis.

In this sense it has been fundamental, the appearing of the Mexican Network of Efforts Against the Desertification and the Degradation of the Natural Resources, A.C. (Riod-Mex), which develops a communication strategy towards the affiliated organizations, as well as to other supporting organizations and people in the fight against the desertification in all the country, through meetings, workshops and mainly in its electronic bulletin.

At the beginning of the process of the formulation and application of PACD-Mexico, the excellent actors in the definition of the priorities and awareness were the diverse governmental agencies and the academic sector. Its participation has stayed constant, but increasing participation of the social organizations has modified the composition of the participant actors at the moment. In the last years, the Mexican society has come increasing its knowledge and participation with respect to diverse environmental subjects and has obtained spaces, more and more numerous and ample, to channel its participation for the suitable formulation and conduction of the public policies. Only in the environmental sector 684 devices of participation and consultation exist that group approximately 6,000 advisors.

The different programmes and projects undertaken from the public sector count on mechanisms of consultation and participation of diverse groups of the society, that within the framework participate in the items boarded by the programmes and policies, which always does not mean the fight against the desertification, but of aspects such as the forest sector, soils restoration and conservation, reforestation, etc.

IV. CONSULTATIVE PROCESS IN SUPPORT OF THE PREPARATION AND IMPLEMENTATION FOR THE PROGRAMME OF NATIONAL ACTION AND OF AGREEMENT OF ASSOCIATION WITH DEVELOPING COUNTRIES AND OTHER INTERESTED ORGANIZATIONS

In the process of elaboration and implementation of its Plan of Action, Mexico has only solicited and obtained the financial support of the Office in Mexico of the FAO and technical support of the Regional Office for Latin America and the Caribbean of the Nations United Programme for the Environment. Both organizations supported the process of elaboration of PACD-Mexico through the agreement subscribed with such aim in 1993 with the National Commission of Arid Zones.

To date, specific mechanisms for the international associate involvement have not been adopted like part of the consultative process of the Plan of Action of Mexico. This does not mean that there aren't organizations and countries associate that have programmes of development in the country in areas related to the fight against the degradation of lands.

V. MEASURES ADOPTED OR PLANNED WITHIN THE FRAME OF THE PLAN OF NATIONAL ACTION

Although there have been different analyses of previous experiences in the matter of combat from the degradation of lands, no of them constitutes a formal diagnosis. However, the discussion in this sense during the processing of the Plan of Action oriented the strategy, objectives and the attachment lines of the same one.

As one considered from the beginning of the report, Mexico has been implementing its national plan through diverse programmes and emanated projects of the process of Democratic Planning 1995-2000. Diverse programmes and projects in operation exist that support the objectives of the fight against the desertification, although some of them were not raised initially with that approach. The DGRCS has made efforts with diverse institutions and organizations in order to look for the harmonization of objectives and strategies very varied that affect the fight against the degradation of lands. Although important profits have been obtained, this process of complementariness and synergy must be strengthened and is one of the objectives of the update of the PACD.

The inventory of programmes and projects related to the fight against the degradation of lands, includes aspects of conservation and use of the natural resources (soil, water, vegetation, wild life), fights against the poverty and economic improvement, improvement of the farming systems of production, reconversion and productive diversification. In many of the cases, the programmes and projects have like raised objective or contribution more than one of the mentioned aspects.

The process of update of the PACD will allow to identify and to agree the proposals of new actions that they give renewed vigour to the Plan of Action and to affect of more suitable way the process of national planning 2001-2006. However, they have already been identified

measures that would have including or to be strengthened, such as: productive reconversion; adjustment and fortification of local schemes of regulation of access to common resources; systems of early alert for the drought and the inventory of technologies for the combat to the degradation of the natural resources.

The decentralization has been the main strategy of the Mexican government to strengthen the capacity of the institutions and local organizations. This decentralization of resources and functions arrives in some cases only until the level of the State Governments, whereas in others the advance of the decentralization has been until the scope of the municipal governments. Even though the decentralization process does not have as specific objective the creation or fortification of local capacities to face the fight against the degradation of land, it is a fact that the item can be benefited greatly from the decentralization.

Along with the decentralization, mechanisms for the insertion of the communities and its representatives in the instances of planning of the development have been anticipated, as much municipal as state. The local committees and their representatives have become high-priority subjects for the transmission of information, training and the qualification for the expansion of capacities.

The programmes and projects related to the fight against the degradation of lands in Mexico cover the high-priority areas established by the CCD. The conservation of the natural resources, the improvement of the economic context, the improvement of the institutional organization and the monitoring and evaluation of the effects of the desertification are contained in the different programmes, although in some cases they have more of an objective; of such way, that it is possible that some projects consider objectives ecological, economic and social.

The applied financial resources for the implementation of the Plan of Action to date have come from the existing programmes in different instances from the federal government; although, in some cases, it is difficult to establish with clarity the amount of the contributions that the programmes do in favour of the combat to the degradation of lands, since this it is not the only or main objective of these programmes.

VI. FINANCIAL CONTRIBUTIONS OF THE NATIONAL BUDGETS TO SUPPORT THE IMPLEMENTATION OF THE ACTION PLAN, SUCH AS TECHNICAL ATTENDANCE AND COOPERATION

To date the national resources have represented the only source of financing of the Plan of Action. The main mechanisms promoted by the federal government to facilitate the access of the local actors to the financing sources are the decentralization and a greater diffusion of the existing resources in the diverse programmes.

In order to support the previous thing, the federal resources that have subsidy character are forced to publish in the first two months of every year the Rules of Operation and to open to public calls so that the communities can present their proposals, which will be analysed and described by an established dictaminador committee in the Rules.

To date the financing of the actions against the land degradation has been financed directly with the anticipated national budgetary resources in the effective programmes and that are related to the subject. Even though this has allowed some progresses, the financing is insufficient and innovating methods for the mobilization of resources are required.

The exploration of other methods of mobilization of resources includes: the opening of the specific budgetary heading for "Fight Against the Lands Degradation" in the Budget of Expenses of the Federation and the creation of a National Fund for the Restoration and Soil Conservation, both still in processing process and analysis.

VII. REVIEW OF THE BENCHMARKS AND INDICATORS TO MEASURE THE PROGRESS AND AN ASSESSMENT THEREOF

The development of a model to measure and to evaluate the progresses in the fight against the degradation of lands is one of the present priorities within the implementation of the CCD in Mexico. The project of the System of Monitoring of the Lands State is at the moment in the phase of conceptual development. During this year a region will settle down pilot of the monitoring system, like part of the project "Model of indicators for dry lands ecosystems", in joint form with Chile and Brazil. From the results of first stage and with base in a report of applicability and potential use of the model, Mexico will have to consider the strategy for its application in other regions and the requirements of technical support and financing with such aim.

NICARAGUA

Even though being one of the few Central American countries that still contains a considerable extension of forest land, Nicaragua experiments a severe process of desertion and degradation of its grounds with an annual deforestation rate of 120,000 hectares per year, which accelerates the loss of natural resources and the bio-diversity, provoking scarcity of superficial and underground waters and the definite erosion of the grounds.

This situation of severe environmental deterioration is due to causes like the overexploitation of the grounds, unsustained agricultural and forest practices, forest fires and agricultural burning, added to droughts and hurricanes and a high level of poverty demolishing at the productive activity and rural unemployment. With the passing of Hurricane Mitch in October of 1998, the environment suffered additional damage that worsened the existing precarious conditions.

Having analysed the environmental situation's background, the Government of Nicaragua, in the framework of the Summit of the Earth celebrated in Rio de Janeiro in 1992, and from the Capacity 21 Programme, ratified the United Nations Convention to Combat Desertion (UNCCD) in October of 1997 with the help of the international community. It is arranged to cooperate in the implementation of measures that the problem demands.

Meanwhile, the main objective of the current National Report is the accomplishment of the lineaments suggested by the Conference of the Parts (COP 1, Rome, 1997), and also to show countries Parts of the Convention in the Fight Against Desertion, Nicaragua's situation regarding

the adopted measures for the implementation of the UNCCD at a national level and to supply an evaluation of the reached progress, in the application of the Convention's objectives.

I.1 THE COUNTRY'S GEOGRAPHICAL SITUATION

The Republic of Nicaragua is located between the Republics of Honduras and Costa Rica, between the latitudes 10E45'N and 15E15'N and the longitudes 83E00'W and 88E00'W. It is the largest country (130,682 km^2, being 120,349 km^2 of firm land) and the least populated (around 4.7 million habitants) of the region, with an annual growth rate of 2.9 per cent. The country is divided into 150 municipalities that form 15 Departments and 2 Autonomous Regions.

I.1.1 Ecological regions and hydrologic valleys

Having in mind the following ecological factors: geology, topography, climate (temperature and humidity), ground and vegetation, to facilitate the study of the vegetation, the country is divided into the following four Ecological Regions.

THE PACIFIC REGION, is the most populated (19 per cent of territory and 60 per cent of the national population). It concentrates most of the agricultural and industrial activities and possesses the deepest and most fertile grounds of the country, which originates the highest demand of water for irrigation, domestic and industrial consumption. The rainy season lasts six months and 67 per cent of the precipitation is presented practically in three months. This region contains 50 per cent of the best grounds and it concentrates 99 per cent of the highest agricultural development areas, generating 66 per cent of the country's agricultural VBP, mainly in products like cotton, sugar, rice, sorghum and bananas. It is also the region with the most stable territorial structure, contributing 79 per cent the national IGP.

THE NORTHERN-CENTRAL REGION, second in importance concerning population density (39 per cent of the territory and 35 per cent of the population, most of it rural), it presents a mountainous topography, it is where the main rivers of the country begin. It has more superficial and less fertile grounds than the Pacific Region. It presents a variety of climates that go from a cool humid climate to a semi-dry climate and experiences a rainy season a lot like the Pacific Region, affected by a lack of aquifer formations that store and feed the currents in the dry seasons. It generates 19 per cent of the national IGP and 33 per cent of the agricultural VBP (cattle, coffee, basic grains and tobacco) and most of the forestry production.

THE CENTRAL REGION, is characterized and defers from the others for being a transaction zone between the vegetation of the ecological regions one and two of the Pacific and Northern-central, as well as for the Ecological Region of the Atlantic. The climate is warm and humid in the higher parts. The average annual temperature is about 25EC in the low parts and from 18E to 24EC in the high parts. This region has an extension of about 20,531 km^2, with a longitude of approximately 450 km between Rio Coco in the north and Lake Nicaragua in the south, with an average width of 45 km, being 17 km it's narrowest part and 75 km it's widest. In this region there are lands of considerable height that alternate with plains and hills that motivate a great diversity of floristic composition.

In the Central and Pacific regions there is a high variability in the climate. The frequency and harshness of the droughts vary in function of the occurrence of EL NIÑO (ocean-atmospheric phenomenon of climatic alteration on great scale).

THE ATLANTIC REGION (42 per cent of the territory and 5 per cent of the population), it's characterized for its humid tropical forest climate with low and fragile grounds, and a high rainy precipitation that varies between 9 months in the north and approximately 11 months in the south, presenting the highest proportion of water in the country. Its economy is less developed than the Pacific and Central regions of the country, supplying only 2 per cent of the IGP and 1 per cent of the gross value agricultural production (GVP), although it generates 89 per cent of the national fishing and most of the timber production of the country is extracted from its forests, where the richest bio-diversity of the country is concentrated on.

Hydrographic valleys

Besides the ecological divisions, the country is divided into 21 hydrographic valleys, that at the same time are subdivided into two large variants: the one from the Atlantic Ocean or Caribbean Sea that covers approximately 90 per cent of the national territory and the one from the Pacific that covers the remaining 10 per cent. The equivalent plate of annual average precipitation is of 224mm, with a national surface runoff of about 5500m^3/seg. However, as mentioned earlier, these resources are specially distributed in an irregular form: 96 per cent of the national surface runoff drains toward the Atlantic and only 4 per cent goes to the Pacific. In a way that in the Pacific and Centre the currents aren't sustained much in a permanent manner, and the existence of ephemeral currents is very common.

I.2 DESCRIPTION OF THE DRY ZONES OF THE COUNTRY

To describe the dry zones of the country, we part from the classification of the forest zonal ecosystems, given that these zones are subjects of variable climates, in a way that its existence depends on the influence of factors like the humidity maintained by the average contributions of annual pluvial precipitation, consistent with patterns of local, zonal or regional distribution.

The dry zones are found in seven out of the fifteen departments of the country representing 15 per cent of the national territory, in where 50 per cent of the population lives. The dry zones are distributed mainly in the ecological regions of the Pacific and Centre, possessing a height limit no greater than 500 masl (metres above sea level) and covering a surface of approximately 10,000 to 16,400 km^2, divided in two parts:

A dry warm zone, with temperatures between 26E and 29EC, a precipitation between 750 and 1200 mm and a rainy season that goes from May to October, with an altitude that goes from 0 to 500 masl. It is characterized for having forest land, and at the same time it possesses species that indicate drought, like guayacan, escobillo, nacascol and brazil.

A warm semi-humid zone, which is distributed in the same way as the ecological zones I and II, with the same altitude of 0 to 500 masl and similar temperatures between 26E and 28EC, but with a varying precipitation of between 1,200 and 1,900 mm.

I.3 SOCIAL-ECONOMIC CONDITIONS

Nicaragua, according to the Human Development Report of 1999, is located on the 121st place from a total of 147 nations, with an internal gross product of less than US$ 2,000 per capita. It is estimated that the poverty and the extreme poverty affect at least 50 per cent of the population especially in the rural zones where the level of poverty reaches 75 per cent.

In the last ten years, the country has had an economical growth of an average of 2.4 per cent, with the third activity that has the greatest relative importance in the attribution of the formation of the IGP. Due to the natural physical context of the country, socio-economic development has been based on agricultural and cattle activities and the exploitation of the forests. The main incomes of the country have been sustained in the exportation of traditional products (60 per cent), complemented by the exportation of non-traditional agricultural products and by industrial products, manufactured in the free trade zones (40 per cent).

The amounts of the direct foreign inversions ascended from US$ 35 million in 1993 to US$ 95 million in 1998 and were located mainly in commercial activities, tourism, bank services, construction and in free trade zones, with a lack of participation in the agricultural, industrial, and agribusiness productive sectors.

Hurricane Mitch, which destroyed Central America in October 1998, has been the worst natural catastrophe of the century in the region. It destroyed a great part of Nicaragua's north zone affecting 90 out of the 150 municipalities. The totals of the material damage present more than US$ 900 million (94 per cent related to the loss in capital and 6 per cent in production). The material losses were mainly in housing, roads, electricity, potable water, communications, health, education and agriculture.

In this context, the municipalities in the dry zones, are characterized particularly for having a population with a high degree of poverty, they are dedicated in the exploitation of remnants of existing forests for the establishment of sub-existing agriculture, which is the main element in the degradation of the grounds. In this sense, the incomes generated by its production are very low, as a consequence of the adverse ecological conditions in that they are found and having a limited level of development in the natural production of energetic species, destined for domestic consumption and some woody species with a high economic value. The population, when suffering the effects of degradation of the earth, in their places of origin, lose interest in cultivating their parcels, and are obligated in seeking shelter in the cities, where they generate other social problems that affect the population in general.

Nicaragua is one of the few countries in Central America that still maintains a considerable extension of forest land - from pine trees, low tropical humid forests and dry tropical forests - to misty jungles. Lands with forest vocation cover approximately 6.2 million acres, from which 1.8 million have vocation for being conserved and 4.4 million for having a sustained production.

Nevertheless, it is estimated that these potentials have been submitted to a deforestation that reaches a gross rate of 100,000 hectares per year. The 1980s were a favourable period for this resource, because the rate decreased due to the bellicose conflict. Increasing drastically in

the 1990s due to the activities of colonization, for the distribution of the land to groups of peasants, in extensions of approximately 150,000 hectares per year. In the last three years, this digit has been reduced to the order of 100,000 to 120,000 acres.

Given in Nicaragua, like in most tropical countries, firewood is the main use of the forest; this is another factor that has influenced the process of deforestation. This activity represents more than 12 times the consumption of the timber industry.

On the other hand, in 1983, the annual consumption of wood used as domestic fuel was ascending to 3.7 million cubic metres (2.6 million ton, 690kg/m^3) being the consumption per habitant of 0.85 tons per year.

In 1990, firewood represented 55 per cent of the total of the consumption of energy, in comparison with other sources of energy like vegetal carbon with 1 per cent and the petroleum derivatives with 27 per cent.

It is important to mention than more than 90 per cent of the consumed energy proceeding from natural forests come from the remnants of forests in the dry zone, where some of the important woods or high power heat producing species are found in an accelerated process of disappearance.

Concerning the timber industry, there is an estimate of 76 active saw mills in the country, with a capacity of about 300,000 m^3 of wood: 9 companies of second transformation, 41 pine processing companies, 50 companies that process forest wood, making a total of 100 industries. The production in 1990 was between 70 to 96 m^3, with an idle capacity of 70 per cent. The sawmills in general are of small scale, with a maximum capacity of 5,000 m^3 per year.

Institutional measures to implement the Convention

One of the first steps for the Implementation of the UNCCD has been the confirmation of the National Coordination Organ (NCO), structured by representatives of state institutions and the civil society, to promote the activities and support the focal point and its technical team, facilitating basic information in the discipline of interest, even with out having a juridical personae or an assigned potential budget. It has to be mentioned that due to Hurricane Mitch, this process was interrupted due to a drastic change of priorities and it wasn't until the second half of 1999 that the process was continued, starting the Country Study on Desertion in Nicaragua.

In continuance the description of the developed actions from the initial period to the present date.

I.4 CONSULTATIONS WITH STATE INSTITUTIONS

With the purpose of strengthening the work of the Convention, meetings with MARENA's department delegates are developed with the objective of explaining what the Convention consists of, and also identifying relevant elements that can be used as reference, on the deterioration of the ecosystem in their territories.

In the same line, a process of consultation is started with diverse national institutions related to the subject, among these we find the National Forest Institute, the Ministry of Agriculture and Forest and the Nicaraguan Institute of Territorial Studies. The services of INETER were contracted in June of 1998 for the execution of The Classification Map on Available Humidity in Nicaragua, using the Hergreave method, presenting as a result the identification of zones sensitive to desertion. INETER is also obligated to facilitate information on Nicaragua, which is helpful in finding desert-like zones.

On 15 May 1998 the first national meeting of the Government concerning the Convention was upheld, with representatives of the aforementioned institutions with the purpose of presenting the Convention and to reach an agreement on the next steps to follow. In this occasion there was participation from the Convention's technical advisers in the Fight Against Desertion and Drought.

I.5 MEETINGS WITH CIVIL SOCIETY

The involvement of NGOs and other organizations of the civil society in the activities of planning, sensitization, start and continuance, mobilization of resources and the evaluation of the Convention is considered primordial. The objective is to count on the focal NGOs in each one of the departments so that they can work on the planning, in coordination with government delegations.

A first contact was made on 3 March 1998 in coordination with The National Office of the PNUD, being present environmental NGOs. The objective was to sensitize potential doers in the subject of desertion and to select the NGO that would act as a representative in the first Central American Encounter In the Fight Against Desertion, realized among the assistants, the present NGOs decided to select a temporary representative, the NGO Augusto C. Sandino Foundation (FACS), that participated in an active form in the meeting.

On 6 May 1998, the first National Meeting of the Civil Society on the Convention was summoned, with the participation of NGOs that work on activities related to the subject, to present the Convention and the related activities to its implementation, to select the NGOs' focal points in the affected departments, and to introduce the International Net of NGOs on Desertion (RIOD).

At this meeting it was agreed to meet with NGOs working in the department of Esteli. This meeting took place in the city Esteli on 18 August 1998 where the Convention and a proposal of activities to develop were presented, to begin the job in this department as a pilot of the Convention.

I.6 METHODOLOGICAL WORKSHOPS

Subsequent to the activities indicated before, five departmental workshops were developed in the framework of the Country Study, with the object of sensitization the sectors and to obtain information on the issue. The seats of the events were the cities of Esteli, Teustepe, Matagalpa, Jinotega and Chinandega where representatives of the bordering cities and

municipalities with the same drought problems attended. The development of the workshops was possible due to the attribution of the General Direction of Territorial Coordination, at the request of MARENA that has a wide control over the agencies of the institution.

On 5 April 2000 a National workshop on Desertion was realized; representatives of the Civil Society of municipalities in the dry zone of the country and delegates of MARENA, MAGFOR, INAFOR, CONADES, the Legislative Assembly, NGOs and other institutions related to the subject assisted. The workshop's objective was to make known the Country Study, to discuss the proposal of a National Action Plan to enrich and establish an exchange of opinions and to achieve a consensus on the need of a NAP.

All these workshops have counted with the participation of different key administrators in the territories: institutional, municipal city halls, environmental NGOs, women's organizations and other civilian society organization delegates. It is important to mention that there was also the participation of a lady specialist in subjects of the same kind, demonstrating the principles that this method is based on and helping to understand the problems of women in the fight against desertion.

Conferences on the subject were also realized, given by state institution technicians or projects that worked locally on the dry zones, followed by a period of questions and answers about the exposition. This motivated the debate on the subject of desertion. The previous, permitted the participants to clear up some doubts on the subject and to share opinions about the causes and effects of the indicated problem. Documentation and articles on the subject were also handed out to all the participants.

Another important activity that was realized, were the contacts of Nicaragua's focal points with all the delegates of other member countries in the exchange of experiences in relation with the national reports, the elaboration of the NAP and the implementation of the UNCCD, in their respective countries. For these contacts the meetings of the Parties were taken advantage of.

I.7 RESULTS AND ACHIEVEMENTS

The obtained results to the present date are the following:

- The Country Study was elaborated on the desertion of Nicaragua, it counts on basic information on the dry zones; it will serve as a work document that can be enriched, and that includes the fundamental process of implementation of the UNCCD;

- A series of workshops on the dry zones will be developed, until concluding with the National workshop in April of 2000.

- A statistic base was established with cartographic information of Nicaragua's dry zones.

I.8 NATIONAL FINANCE

Even though Nicaragua still doesn't count with a National Fund for the Fight Against Desertion and Drought, the Government has made efforts with its own budget and with support from the UNDP, for the development of all the activities implemented up to date.

I.9 CONCLUSIONS

The developed activities in 1998 were very important, the process of spread on the Convention was started and the goals to reach for the Fight Against Desertion.

Contacts with NGOs and with government institutions sensible to the subject were established. However, there was an interruption in the implementation of the UNCCD in Nicaragua, due to the Hurricane Mitch in October 1998, and also because of the lack of institutional and financial capacity to assign in a professional that could support the focal point in permanent manner.

With the support of the PNUD and the government, the process of implementation is continued through MARENA, in August 1999, obtaining as a result a series of consultations and workshops in the dry zones ending with a national workshop which received the proper relevance. Today we count with a Country Study and a proposal of components for the National Action Programme (NAP), that were introduced to consult on 5 April 2000. It is important to show that for the realization of the national workshop, the secretary of the UNCCD, covered part of the inversion budget.

PANAMA

The Republic of Panama is located in the Southern end of the Central American Isthmus, in the Northern Hemisphere. Panama's boundaries are: to the North with the Atlantic Ocean; to the East with the Republic of Colombia and to the South with the Pacific Ocean and the Republic of Costa Rica.

Panama's has a continental land extension of 75,517 km^2, and a population of 2,674,490 inhabitants. The topography is mainly of low lands and hills of less than 700 mts. of altitude (70 per cent of the national territory). The Pacific and Atlantic coasts have a total length of 1,700.6 and 1,287.7 km, respectively. Due to the Isthmus narrow conditions, low elevations, geographic location and coastal extensions, it offers excellent conditions as a maritime country.

Panama has a unitary, republican, democratic and representative Government. Its territory comprises the territorial surface, territorial waters, subsoil and airspace, is divided politically and administratively into 9 provinces, 67 districts, 549 precincts and 4 Indian territories.

The Panamanian Isthmus has five types of climates: tropical very humid, tropical humid, and tropical dry, predominant of the lowlands; in the highlands the climate is predominantly humid and mild, and mild and very humid. There are two definite climatic seasons, the dry season, which starts from mid-December to April, and the rainy season that extends from May to December.

There is a region of the country known as the "Dry Arch", where the dry season extends up to seven consecutive months. This area covers approximately 240,000 hectares. It has important inland cities, with a total population of 250,000 inhabitants, who suffer the rigorous process of desertic conditions.

The environmental and hydrographic watersheds degradation becomes quite evident in the subtle and shrewd desertic conditions that prevail in the Dry Arch of Panamá, where there is an extensive exploitation of the subsoil waters, and which rates of extraction and availability are unknown.

Likewise, the proliferation of dangerous events such as floodings and overflows during the rainy season, such as those that occurred in the City of Panama and capital cities of different provinces, resulting in the loss of human lives, millions of Balboas in material and agricultural damages; the progressive destruction of the hydric regulation capacities of the national hydrographic watersheds, such as the Canal hydrographic watershed, Bayano, La Villa, Santa María and Chiriquí Grande, Caimito, Pacora and Chiriquí Viejo, where we have a report of soil layer loss of 3 centimetres, a soil of great fertility in the highlands of Chiriquí.

The country, in general, lacks a specific regulation for the handling and conservation of soils, and the hydrographic watershed, which results in an inefficient environmental action, insofar as to technical personnel, infrastructures, physical resources and budgets to support the limited personnel. Currently, the principal causes for soil degradation are soil erosion, resulting from the loss of vegetation surface layers, or deforestation, the application of obsolete production practices and lack of soil conservation measures.

On the other hand, the process of housing developments on land that is suitable for farming, agricultural-industrial activities and cattle breeding. Also, the fact that farmers and cattlemen use fire, chemical fertilizers and pesticides; in addition, the peasants utilization of scraping and burning practices, indiscriminately, as farming methods. This is a major problem in the majority of the Pacific slopes, with greater intensity in the highlands of Chiriquí, where the loss of soil is greater than 200/ton/per year. Chiriquí's East sector, Veraguas North sector, Los Santos, Herrera, Panamá West sector, Bayano's Basin, and Darien's West sector. In the Atlantic slopes there is an increasing process of soil deterioration in the upper and lower coast of the Province of Colón. Among the actions to pursue, we identify the loss of soil, erosion and sedimentation. For this purpose, the Government created the National Environmental Authority, the Faculty of Agricultural Sciences and other institutions.

In conclusion, this situation has created an irreversible degradation of 27 per cent of the country's soil, and is deeply-rooted in the Dry Arch region of the country because of its fragility and disproportionate impact in the environment, thus creating a growing process of desertic conditions characterized by acute droughts that result in losses to the domestic and economic activities of the communities.

The environmental protection in Panama is based on disperse regulations, in addition to the weakness of the institutions, and lack of financial and human resources. These limitations prevented the adequate application of existent environmental policies to solve the country's basic ecological system problems.

In response to the need of organizing and unifying a national environmental policy, and an efficient system to face the national environmental problems, the Government enacted a General Environmental Law on 1 July 1998. This law defines the basic principles of the environmental policy and, creates the National Environmental Authority (Autoridad Nacional del Ambiente-ANAM). Thus, ANAM assumes the responsibilities and functions previously held by the National Institute of Natural Resources (INRENARE) which disappears with the creation of the new Institution.

ANAM gives priority to the regulatory process focusing its efforts in the most sensitive environmental actions to comply with the environmental policy, giving priority to the areas of major progress, or areas that are strategically relevant for a harmonic development of the environmental process. In this capacity, we identify three areas to initiate the regulation process:

(a) The Evaluating Process for Environmental Impact;

(b) The procedures to establish environmental quality norms and maximum allowable limits; and,

(c) The mechanisms for citizens participation.

For these three areas, the regulation project is underway and, likewise, the consultation process, through workshops and meetings with the social sections involved. Official Gazette No. 24,014 of 21 March 2000 establishes the regulation procedures to prepare the norms for environmental quality and maximum permissible limits; also, the formation and function of the environmental consultation committees, through Official Gazette No. 24,015, of 22 March 2000 that regulates the process of Environmental Impact Evaluation.

The General Environmental Law compiles and integrates the environmental legislation which was scattered in the different ministries, institutions and authorities. Nevertheless, we recognize the fact that there are certain legal loopholes, duality of functions, and conflicts of authority. These factors limit the full application of the Law in certain key sectors of the environmental action; which also concentrates the majority of the environmental concerns of the Panamanian society, as reported by the National Environmental Strategy.

Many of the conflicts could be resolved by strengthening the institutional coordination, encompassed within the Environmental Intra-institutional System or the Web for Environmental Section Units. Nevertheless, on a mid-term period, it will be necessary to have a greater environmental policy integration with sectional policies and the development of tools that determine the different institutions roll and functions, and the strengthening of coordinating mechanisms.

Panama has ratified, since 1963 up to the present, 21 Agreements or Global Protocols related to environmental subjects and 10 Regional Agreements since 1954, among which we can mention the following:

- United Nations Framework Convention on Climate Change;
- Convention on Biological Diversity;
- Convention for the Establishment of an Interamerican Commission for Tropical Tuna Fish;
- Constitutional Agreement of the Central American Commission for the Environment and Development.

Among the activities adopted to implement the Convention on Desertification is the implementation of workshops for regional consultations in critical areas of the country, such as the highlands of Chiriqui and the Dry Arch of the country in the central provinces. Workshops at national level in the City of Panama. For these events we had participants from government institutions, non-government institutions, several production sectors, independent farmers and representatives of the civil society.

The tools identified in the Country's Consultation Workshops to attack the problems of desertification and degradation of the land are the following:

1. Awareness and Environmental Education;
2. Financing and Urgent Investments;
3. Legal Context;
4. Attack on Poverty;
5. Citizen Participation;
6. Scientific Studies and Investigation;
7. Intra-institutional Coordination and Institutional Strengthening;
8. Integrate a new methodology for Sustainable Development in the economic growing process.

Also in the consultation workshops, specific recommendations were presented on the actions to implement each subject of the National Programme against the Desertification and Degradation of the Soil.

Environmental education

It is important to implement a Plan for Environmental Education both formally and informally, at elementary, high school and university level. Also, addressed to the different sectors of the society, incorporating the subject of the fight against desertic conditions to the different ongoing projects.

Financing and urgent investments

Within the specific actions related to this subject, it is important to propose projects that allow the identification of critical areas and the actions required for their reduction. These programmes should also cover women in rural areas, since they carry out multiple tasks in their homes, plus farming, and cattle breeding. For these purposes they encounter major difficulties in obtaining credits and any other type of support.

Legal scope

As a result of the national consultation regarding the necessary legal actions to adopt, there are relevant issues to consider such as, existent legal loopholes, definition of institutional authority and enforcement of the regulations in the Republic of Panamá, including application of exemplary sanctions to violations of the Environmental Law. The consultation also highlights the development of training and updating for the government authorities and local governments to create their awareness of the environmental laws and their enforcement.

Attack on poverty

We must begin by creating a vision of the programmes and integrated plans we require to attack poverty. These programmes must consider training for the affected populations in sustainable development methods, since the problem of desertic conditions cannot be resolved by just applying technical measures. We must incorporate within the national policies and strategies for programming, the fight against desertic conditions and soil degradation. In this sense, it is important to highlight the synergetic effects of other conventions, such as Climate Change and Biodiversity, that would allow to extend coverage and efficiency for the proposed measures.

Citizens' participation

As one of the main aspects, we suggest the adoption of a modern and participative system for environmental action, where the participation of the civil population is guaranteed in the fight against soil degradation, desertic conditions and drought.

Studies and scientific investigations

It is important to implement Title IV, Chapter VII of Law #41, the General Environmental Law, which refers to the Technological and Scientific Investigations indicated in articles 51 and 52, that states as follows:

- Article 51. The Government will promote environmental scientific and technological investigation programmes, both public and private, to have greater elements of judgment in the decision-making process for national environment.

- Article 52. The National Environmental Authority shall coordinate the preparation and execution of the permanent programme for technological and scientific investigation, oriented towards environmental actions and natural resources.

Inter-institutional coordination and strengthening of institutions

It is suggested that the relevant parties which are the communities, government organizations, non-government organizations, local governments, and donating organizations, coordinate and cooperate with the development of programmes and their implementation, as well as the creation of a coordinating commission to follow up and observe advances, problems and results based on the Action Plan.

Integrate a new style of sustainable development into the economic growth process

As a general policy of State and recognizing that the attack to the problems of desertic conditions and degradation of the environment is a direct attack to the problem of poverty, it is essential to incorporate to the development of national policies and strategies of the Government, the Action Programme for the Fight Against Desertic Conditions and Soil Degradation.

To support the Convention implementation, considering the subject of desertic conditions, we do not handle budgets, nor financial contributions. Nevertheless, within the National Environmental Plan that ANAM executes with financing of the Inter-American Development Bank (BID), there is the component of Environmental ordinance to be executed within three years, which may be considered as an action related to the subject of Desertic Conditions.

According to the General Environmental Law, it is the National Environmental Authority (ANAM) that prepares at the end of each government period, a Report of the Environmental Situation of the Country. This Environmental Report may be considered as the Governments' mechanism to follow-up and evaluate the environmental actions in Panamá.

The operation of the National System for Environmental Information has been proposed, and was created under Law No. 41, which has the objective of gathering, systematizing and distributing environmental information of the Government between government organizations, as well as public and private organizations. In this manner the capacity of the country is strengthened and is able to produce impact indicators.

Poverty is broadly extended in the country, covering 37 per cent of the Panamanian population. Within this bracket 27 per cent live in extreme poverty. Several studies have shown that extreme poverty is concentrated in 24 districts (a third of the total districts that conform the country), distributed in the Atlantic Coast, the Indian areas of Chiriquí, Bocas del Toro, Veraguas and Darién.

In Panamá, the growth rate of the national production, measured according to the Gross National Product (GNP), has descended in every decade after the 1960s. During the 1990s the growth rate also descended. The GNP rate grew 4.4 per cent in 1997. Yet, the social problems have not been mitigated. Panama is in need of a vigorous growth rate in order to face the increasing needs of the population and to up-grade their income per capita.

In the Latin American context, Panamá is one of the countries with more resources destined to education. The importance that the Government gives to this instrument of social promotion is shown with the education expenses that in average represents 4.9 per cent of the GNP and 10 per cent of public expense. Nevertheless, the system still shows inequity symptoms, such as low quality and inefficiency, which act negatively in the fight against poverty, unemployment and social margination.

The inequity of the system is reflected in the low coverage rates observed in elementary and high school education, especially in the rural areas, urban marginated areas, and Indian areas.

PARAGUAY

The Republic of the Paraguay is divided by the river Paraguay in two natural regions, very differed environmentally, the Oriental Region and the Western Region or Chaco. Politically and administratively, the territory is divided in seventeen Departments. In the Oriental Region, the annual average temperature oscillates between 21 °C and 23 °C in the Western Region, the annual average temperature is of 24 °C.

One of the most eloquent qualitative parameters in this expansion constitutes it the quick deforestation process, causing a decrease in 32.22 per cent, existing in 1945 with 8.805.000 has at 2.837.718 there is in the I finish monitored carried out in 1997, (Map of Forestry DOA/BGR). The insert of the country inside the UNCCD is given starting from 1997, by means of the ratification of the Convention to Combat Desertification and Drought (UNCCD) and the promulgation of the Law 970/97 through the Executive Power. In this sense it is of standing out that the desertification like a current natural phenomenon presents little representativeness in the country, I did not seize the degradation of lands that is the result of an inappropriate interaction in the practices of qualification of lands, practical cultural and production systems that are causing erosion problems and compactación of floors, low fertility, among others. However at the national level, considering the presence of possible areas, the Western Region or Paraguayan Chaco, it is considered as the most susceptible to degradation processes that of not having mechanisms of alert or adapted forecast would rot to future to favour the formation and advance of the desertification like such.

Inside the normative mark, the promulgation of Environmental Laws, they have been another of the opportune factors that they facilitated the protection, preservation and conservation of the natural resources.

By means of the Undersecretary's of State of Natural Resources active action and environment (SSERNMA) he/she has strengthened the cooperation between government's organisms and ONG's of the whole country. This cooperation defines the implementation of programmes and plans and improve the strategies of environmental administration, inside which the fight for the degradation of lands and its effects on the environment takes to the desertification and drought like probable parameters of action.

In spite of the incipient preponderance of the environmental sector in the Paraguay, the development politicians included inside a strategic plan of social development are guided toward the sostenibilidad of the same one.

In this sense they are diverse the programmes and projects of national and international character that have several components of environmental education diversified in several areas of the national territory that point to an integral attendance of indigenous communities, colonists mennonitas, Paraguayans, etc., trying to make aware the appropriate use of the natural resources for arid or semi-arid conditions.

Inside the conditions climate of the Oriental Region, the methodology of environmental education is more guided to the prevention of the degradation of lands and conservation of floors.

Among the achievements reached in the last years they figure the environmental introduction of the thematic one (legislation, rules and punitive, Treaties and International Agreements, etc.), elaboration and political development of structures - administrative suitable regarding the handling and conservation of natural resources, as the future secretary or Ministry of the Atmosphere.

The National Office of Gender, created in the year 1999 inside the MAG, is avocado to the woman's insert and its environment to the environmental problem of the country.

The elaboration of the BREAD so far has not been able to be taken ahead, mainly due to the administrative great political instability that the Paraguay has spent in the last years, forcing the responsible technicians to restart in several opportunities concientización processes to level of Ministers and Vice ministers, local Governments and other dependences involved in the thematic one. Inside the Programme Subregional of Sustainable Development of the Great American Chaco is come carrying out a series of consultations and exchanges of information tenderness to consolidate this vast American region.

Inside the activities foreseen to give pursuit to the thematic of the CCD/PY is the elaboration of documents technical control and pursuit thank you wing international technical cooperation.

The subject or susceptible own evaluation of areas to desertification will be carried out based on the control of the deforestation for both regions (Oriental and Western) in the sense that not alone the established parameters for approaches of selection of arid or semi-arid areas will be preponderant, but also the great influence that it represents the degradation of lands in tropical and subtropical areas that constitute a serious danger for the advance of these processes enunciated in the United Nations Convention to Combat Desertification and Drought for the conditions of the Paraguay (UNCCD).

PERU

Concise and compatible information about the progress and restrictions of the implementation process of the UNCCD during the period 1996 to 2000, is presented.

References for its elaboration:

1. Guidelines for the elaboration of the National Reports for the implementation of the UNCCD (November 1999).

2. PAN PERU 1996, document elaborated in a participatory way, under the UNCCD conception (from bottom to top) and conceived as a process plan and not as a document plan. Four (4) years later, it has been evaluated, at a national level, in 3 regional workshops (North, Centre and South) with participation of 150 representatives of governmental and private institutions, universities, specialists, local governments, communities and other base organisms of the population.

ABOUT THE IMPLEMENTATION OF THE UNCCD IN PERU: 1996-2000

Strategies and priorities set in the context of plans and/or politics of sustainable development

Peru has national plans that enclosed the UNCCD-Peru, like the National Strategy for conservation and Sustainable Development (1992) elaborated by the National Commission for Environment and Development (CNUMAD), also a Focus Strategy of Combat Against the Extreme Poverty (June 96) and a Structural Frame of Environmental Management (MEGA, by its abbreviation in Spanish), formulated and in process of implementation.

The most immediate reference among the plans elaborated by Peru before the functioning of the UNCCD, is the National Plan of Action Against the Desertification (PNACD, by its abbreviation in Spanish), elaborated under the direction of the actual National Focal Point for the Combat Against the Desertification: INRENA. Nevertheless, the plans date from the 60' years, with the conformation of the National Commission of Arid Zones (CONAZA, by its abbreviation in Spanish).

Institutional measurements adopted to implement the Convention

In this aspect, it has to be emphasized that the National Coordination Organ (OCN, by its abbreviation in Spanish) has not been created yet. INRENA, as National Focal Point (PFN, by its abbreviation in Spanish), has assumed the actions of combat against the desertification.

Institutionally, no important actions have been realized after the firm of the UNCCD by the Peruvian State (1995); nevertheless, there is a reactivation of the Regional Associations of Combat Against the Desertification and the starting of the Regional Environmental Commissions (CAR, by its abbreviations in Spanish), which will create favourable institutional conditions for the next stage of the PAN 96.

PAN-PERU 96 is not explicitly included within the great national projects (PRONAMACHCS, FONCODES, ...); nevertheless, there are coordinations to join efforts.

Support participatory process to prepare and implement the national action programmes (PAN, by its abbreviation in Spanish)

In the elaboration of the PAN PERU 96 participated representatives of the North and South Regional Association (Costa and Sierra, in both cases), and of the national governmental and private institutions too. Nevertheless, between the period 1996 and 2000 the mentioned associations did not functioned. In this period, some meetings have been realized at local, national and regional level (V GRULAC 1999), in which priorities in the combat against the desertification have been established, at local level still. And, with respect to information and education, there are problems of information flow (lack of a information system about desertification) and deficiency of diffusion about desertification in schools and universities in a explicit way, because now the theme is treated but like degradation of ecosystems.

The participation of women in this process is not identified, nor quantified; there are isolated efforts, but we cannot talk of something representative.

Support process of consulting to the preparation and implementation of the PAN-PERU 96 of the agreements of association with development countries partners and others entities

The international partners have supported economic and technically to Peru, but too few directly to activities enclosed within the PAN PERU, to actions related with the combat against desertification, such as the national projects like PRONAMACHCS and FONCODES, that also count with funds of the same Peru.

But there are entities of the international cooperation that have collaborated directly, such as the Embassy of the Netherlands, Fundación Ebert, Fundación Esquel or organisms of the same United Nations (UN), like UNSO-PNUD, FAO or another organisms more, like the BID.

Adopted or planned measures in the context of the PAN-PERU 96

Until today, it has not been realized a rigorous systematization of the experience accumulated by Peru in the combat against the desertification, area in which it has a historic tradition for the exemplar management of the coastal arid and mountain semiarid (Sierra) ecosystems and a contemporary course date from the 60' years, with the creation of the National Commission of Arid Zones (CONAZA) and of its active participation in the Nairobi meeting on desertification (1977).

Actually, there are contacts with the national projects to be integrated explicitly within the PAN-PERU process, for example, with PRONAMACHCS, FONCODES, NGOs, SENAMHI, CONCYTEC, as well as with inland institutions through regional workshops.

With respect to the implementation of the PAN-PERU, this information is given afterwards, under the subtitle PAN-PERU 96, there is the related with the measures realized in the conservation of natural resources, the institutional organization, the knowledge on desertification, the monitoring and evaluation of this process and the improvement of the economics environment.

With relation to the links with the subregional and regional action programmes, whether there are not too much of them, it has to be emphasized that during the period 1996-2000 it has been realized the V GRULAC in Lima, having Peru an important role.

The local governments have now, within their mandates, to protect the environment; nevertheless, it have not been developed participatory mechanisms of the municipalities in the combat against the desertification.

There are minimum agreements with the established associations (North and Centre); nevertheless, these have not functioned in accordance with the expectations during the period 1996-2000. Likewise, there are directories of institutions and specialists, but they are not operatives, there isn't information flow among them.

Funding contributions of the national budgets, as well as the financing assistance and the technical cooperation

The local actors do not have yet, specifically, measures that guarantee their access to funding sources from the international cooperation. Actually, only INRENA, CONAM and RIOD-Peru are the institutions related with the possible canalization of the international cooperation.

The most frequent participatory way of participation of the international cooperation have been, up to date, through the support to seminaries, forums and regional meetings.

Among the partners of the international cooperation that have supported with force the PAN up to date stand out: UNSO-PUND, The Netherlands, FAO, BID, the UNCCD Secretary, and other ones.

The Peruvian State contributes designating part of its budget to the implementation to the UNCCD through the functioning of INRENA, but it has not dedicated, in a explicit way, more resources for the combat of the desertification within the PAN-PERU 96, except through the great national projects of conservation of natural resources (water, soil, ...) and combat against the poverty.

The funding priorities will be in function of the new guidelines that will be established in the new PAN-2000 Peru.

Reference points and indicators utilized to measure the progress and their evaluation

Actually, there are efforts to centralize the information on environment, such as the National Service of Environmental Information (SINIA, by its abbreviation in Spanish); or on climatic monitoring at national level, such as the National Service of Meteorology and Hydrology (SENAMHI, by its abbreviation in Spanish); or on regional monitoring of "El Niño" event by the National Council of Science and Technology (CONCYTEC, by its abbreviation in Spanish) with the Organization of American States. All of them and another ones of regional character have improved their capacity of gathering of information; nevertheless, the mechanisms to harmonize these systems have NOT been carry out.

THE IMPLEMENTATION OF THE PAN-PERU 1996-2000

The PAN-PERU 1996 constitutes, for the evaluation of the implementation of the UNCCD, a very special reference, because it contains the practical measures proposed to develop in the years 1996-2000.

Its content is product of a national evaluative process (three regional workshops) and the outputs can be synthesized in the following way: There is a differentiation between the accomplishment of the PAN-PERU 1996 proposals and the actions realized by the institutions of national and regional character. Very important actions have been realized in the combat against desertification, but at the margin of the PAN-PERU 1996. The more important advances have been in the management of natural resources and environment, the combat against extreme poverty, the mitigation systems and early alert of the effects of drought and El Niño event (1997-1998) and the educational area.

In a very low degree, there have been accomplishments related to the monitoring systems (indicators of desertification) and systems of experts, directories, that have not been disseminated nor implemented.

The areas of information, institutional juridical frame, regional associations and the National Fund of Combat Against the Desertification, have not almost been implemented.

With relation to the collection and use of traditional technologies and knowledges, there are great efforts of the ONGs specially, but it have not been worked from the perspective of combat against the desertification; here remains the task of a great systematization of the accomplishments reached in function of the PAN PERU.

The private sector has participated actively through NGOs, communities, work corporations and, in a less degree, the enterprise sector. There are different experiences about the participation of this sector, since actions with too much conservationist tradition, such the in situ conservation of agrobiodiversity by the farmers during several centuries, to investments in irrigation projects in arid zones, that have transformed unploughed soils in cultivated fields in the Peruvian Coast. They were present in the PAN 96 and up to date they are part of the North, Centre and South associations of combat against the desertification. Similarly, the NGOs have an important role in the Coast and Sierra of Peru in the combat against the desertification.

There are minimum contacts of the UNCCD-Peru with other conventions (Climate Change) and agreements (Biological Diversity) yet and one of the great tasks is to overcome this situation, as well as the quantification of the losses generated by the desertification processes.

The lack of coordination and leadership to vertebrate the great number of actions that were carry out during the period 1996-2000 were the more important limitations. There is the consensus of the necessity of develop the guidelines referred to the gender (participation of the woman, family and young people), the traditional technologies and knowledges, the systems of early alert and the local governments, all of them in the combat against the desertification.

Similarly, it is necessary to disseminate with more force the concept of desertification with all its implications, so it can be used explicitly by all the institutions of the Peruvian society implied in the combat against the desertification in Peru.

SAINT KITTS AND NEVIS

Saint Kitts and Nevis is a twin island country with a total landmass of just 269 square kilometres, and is part of the Eastern Caribbean chain of islands. The island of Saint Kitts, the larger of the two, is 176 square kilometres in size and is located at latitude 17.30 N, and longitude 62.80 W. Nevis is 93 square kilometres and located at latitude 170 10' N, longitude 620 35' W, approximately 3 km south-east of Saint Kitts. This country has a tropical and maritime climate that is heavily influenced by northeast trade winds, an average temperature of some 27 degrees Celsius, and annual average rainfall of 801.4 mm.

The island of Saint Kitts generally rises from the coastline toward its mountain cluster. Three volcanic centres, their associated glacis deposits, and a chain of more maturely reduced residual hills linked by recent beach and saline deposits characterize the topography of the central northwest range.

Nevis lies on the inner volcanic arc of the Lesser Antilles and is comprised of nine distinct volcanic centres strung out southwest to northwest along a parallel of the inner volcanic arc. The central Nevis Peak is the most imposing of these centres rising to 985 metres in altitude, giving the island a conical appearance. Mount Lily (Windy Hill) to the north climbs to 309 metres with Saddle Hill in the south rising to 381 metres. The other subsidiary peak of note is Butlers Mountain (578 metres) which thickens the range in the central east of the island.

The island of Saint Kitts is composed almost exclusively of volcanic rocks of andesite or dacite mineralogy. Its geology is similar to that of other volcanic islands in the Lesser Antillean Archipelago. The islands are the summits of a submerged mountain range which forms the eastern boundary of what is known as the Caribbean Tectonic Plate. Saint Kitts is oriented northwest-southeast, about 80 km long and 16 km wide. The entire island archipelago is geologically young, having begun to form probably less than 50 million years ago, during the Miocene era. Volcanic activity occurred along the ridges of this arc during the Miocene era and has continued since.

Nevis is a volcanic island that began its formation in mid-Pliocene times (approximately 3.45 million years ago). However, the island comprises a number of discrete eruptive centres that range in age from mid-Pliocene to Pleistocene, these prevent any single model of the island's geological evolution. The geology of Nevis can be subdivided into four informal units: Volcanic of the eruptive centres, volcanigenic rocks - pyroclastics and lahars, fluviatile and lacustrine deposits, and raised beaches.

The soils of Saint Kitts have been studied and described in detail by Lang and Carroll (1966) and modified by Granger (1995). Edaphic conditions have been greatly influenced by the island's volcanic origins. Soils of a given type are in most cases a product of the extent to which a given volcanic parent material has weathered. Generally, the soils of Saint Kitts can be placed into groups and types. According to Granger (1995), the soils are generally quite young pedogenically showing very little weathering and profile development. Whereas the most developed soils are found on the steep wet upper slopes, the soils on the gentler, but drier, lower slopes show very little profile development.

In the first soil survey of Nevis conducted by Hardy and Rodrigues, it was noted then that Nevis' soils were generally impoverished with respect to potash and that they differ significantly from those on Saint Kitts (Hardy and Rodrigues, 1947). The soil type in Saint Kitts is predominantly a sandy loam while the Nevis soil is clayey.

The climate of Saint Kitts and Nevis is classified as tropical marine. Generally, steady northeast trade winds and tropical oceanic cyclonic movements influence it. Furthermore, the islands enjoy warm even temperatures with a mean of approximately 27° Celsius. Seasonal and diurnal variations in temperature are small.

Rainfall is mainly orographic and increases in amount and frequency with the altitude. Except for the South East Peninsula (SEP) which is very dry, mean annual rainfall ranges from about 16 cm in the coastal areas, to about 60 cm in the central mountain ranges. The situation at the SEP is quite different, with mean annual precipitation varying from 15.6 cm on the peaks to 13.6 cm at Cockleshell Bay.

While some Caribbean countries such as Dominica have undisturbed and extensive forests, the present vegetation of Saint Kitts and Nevis provides evidence of great disturbance by human activity. In the lowland areas intensive land use has removed all vestiges of the natural vegetation. Although the mountain peaks are still covered by forest, they do not have virgin forest characteristics. Lower slopes are covered by secondary growth on abandoned farms. The vegetation, which comprises about 243 species of trees (Beard, 1946), supports wildlife.

The most significant factor that influences vegetation distribution in Saint Kitts and Nevis and other small islands is the distribution of rainfall. Islands with several peaks cause moisture laden air to rise as it moves in a westerly direction. As a result, when the moisture cools and precipitates rain, most of it occurs consistently on the upper slopes and toward the leeward side of the island. Other factors that contribute to the variations in microclimates and the change in vegetation distribution includes altitude, temperature, humidity, saltiness of the air, the intensity and incidence of sunshine, wind exposure, and soil types. These factors in totality significantly influence the bio-diversity of the island.

Water drains in a radial pattern from the central mountain range in Saint Kitts to the ocean, interrupted only by the minor volcanic cones at Brimstone Hill, Ottley's mountain, Sandy Point Hill and Monkey Hill. Most of the water channels are deep and steep-sided, and are usually dry along all or most of their stretches. Only the relatively large Wingfield and Cayon rivers flow almost to the sea for much of the wettest part of the year.

Water drains in a radial pattern from Nevis Peak to the ocean through ten (10) major drainage basins and is interrupted only by the smaller volcanic cones of Hurricane, Saddle and Round Hills. These basins comprise ephemeral ghauts that may consist of up to three stream orders namely Camps River, Barns Ghaut and Kitt Ghaut. In some basins water is channelled from 457 cm above sea level through relatively straight ghauts with steep but not extended sides. The steep sloping sides of the ghauts favour rapid run-off that causes a quick flow of water to the island's coastal areas. This is coupled with the fact that the rain forest is very small and readily exposes any run-off to open evaporation, thereby reducing the amount of available recharge. In addition, the gently sloping peripheral/coastal section of Nevis is not extensive enough to allow for substantial recharge. Almost all of the ghauts are ephemeral except the Bath Stream, which flows year-round to the sea from springs less than 1.6 km inland. Most of the other ghauts flow intermittently, about 3 to 4 times annually, but more excessively after rainfall.

Most of the country's major watersheds are concentrated in the central area of the islands. The area's forest resources provide a reliable rainwater storage service. Rainwater is intercepted by the forest canopy and then absorbed by the soil and root systems.

The coastal and marine ecosystem in Saint Kitts includes coral reefs, sea grass beds, mangroves, salt ponds, diverse aquatic life, and the coastline. As an island territory, Saint Kitts has a fragile 78.1-km long coastline in need of special protective measures for ecological, environmental and economic reasons. It consists of 34.7 km cliff (rocks), 10.8 km cobble, 6.3 km boulders and rocks, 13.1 km black volcanic sand, and 13.2 km golden sand.

Processes of erosion and accretion are occurring at different points on the coast. This is a result of natural factors such as hurricanes, and manmade causes such as beach sand mining, construction too close to the shore, and pollution. While law strictly prohibits large-scale removal of beach sand, it is still being practised illegally in some places.

Coastal erosion is a serious problem in view of the fact that the beaches represent a very important resource to the island. Not only are they heavily used for local recreation, but they are also a vital part of the tourism product. Additionally, they protect coastal infrastructure during storms and periods of high wave activity.

Coral reefs and sea grass habitats are generally found along the southwest coast between Nag's Head and the southern end of Basseterre Bay, on the northwest coast between Sandy Point and Dieppe Bay, on the east coast between Conaree and North Friar's Bay, and on the southeast coast adjacent to the Narrows. Most coral habitats are relatively small with less species diversity than is typical of similar habitats in the Eastern Caribbean. Deep reefs with species diversity are found off Sandy Point and Guinea Point, and in the Narrows. Sea grass beds, dominated by turtle grass and manatee grass species are mostly common in the SEP of the island.

Mangroves were once abundant. This is no longer the case. The main and most extensive mangrove habitat in Saint Kitts occurs in the SEP. Hawksbill and green sea turtles are found around the entire coast. In addition, a large number of resident and migratory birds depend on the mangrove and pond communities for feeding and nesting. Thus extensive effort is needed to conserve what remains and arrest the decline of these important habitats.

The Saint Kitts Sugar Manufacturing Corporation (SSMC) and the Public Works Department, with very limited resources, have been putting measures in place to arrest the severe land degradation along College ghaut (ravine). SSMC's interest in this activity is influenced by the fact that sugarcane fields in close proximity are progressively undermined by severe erosion. The Public Works Department recognizes that where this ghaut passes suffers severe land degradation in relatively highly populated areas. There is a real threat to human life.

Many other ghauts on the island have severe erosion problems almost with similar intensity to that of College ghaut with the exception, however, that they may not be passing through highly populated areas. Degradation along these ghauts undermines arable farmlands, mainly sugar lands. Also excessive silt from erosion is deposited into the sea, contributing to negative effects on the sea grass beds, coral reefs and other spawning grounds in the marine environs.

Most of the arable lands in Saint Kitts are under sugarcane cultivation. This crop which is a member of the grass family, when managed efficiently, is very useful in preventing the erosion of sandy loam soils, the type that is predominant in Saint Kitts.

Arable lands in the upper land areas of the island where sugarcane cultivation takes place suffer erosion where there is absence of sound contouring principles and terracing.

Unscientific as well as illicit farming occurs in some sections of the forest thus predisposing the land to degradation. Many areas in the forest where there are landslides result from this type of farming.

Mining of sand for building purposes has undermined many beaches. In the process, sand dunes, which are provided by nature for protection of beaches against tidal surges, are destroyed, and this process destroys the natural nesting habitats of turtles.

The island main road in Saint Kitts traverses part of the coastline of Half Way Tree Village. That coastline is being eroded and so too is that part of the main road which traverses it. A bypass road may be necessary to protect road users.

A World Bank project is underway for the Old Road Bay area. It will analyse the condition of the bay area and determine whether the use of organic nets on the slopes will help protect the road. Huge rocks do fall down the shore occasionally and pose severe risks to road users.

Several factors contribute to severe land degradation on the peninsula. Massive deforestation in the past first predisposed the area. The land is volcanic in nature several and slopes have been left unstable after a major road was cut through the hills. The rocks on the slopes pose real danger to road users as they have not been cut back to their natural line.

There is an abundance of monkeys. In addition to being a health hazard, they are pests that destroy farmers' crops. They ravage sugarcane grown for export and destroy vegetation in sensitive areas thus contributing to predisposing areas to land degradation.

Land degradation is prevalent in low lying areas, especially Bath Village and Indian Castle in Nevis which receive the lowest amounts of rainfall and also suffer through extensive livestock grazing by small ruminants and a growing donkey population. As a result, there is a lack of vegetation, which leads to large tracts of sloping land that will be prone to erosion, and abundant levels of sea blast, leaving salt on land.

The stakeholders are the farmers, the Saint Kitts Sugar Manufacturing Corporation, the fisheries department, the Government of Saint Kitts and Nevis (GOSKN), land developers, the general public and help is sought from the Legal department.

The NGO community shows concern for environmental issues. It is comprised of the Nevis Historical and Conservation Society, the Saint Kitts Heritage Society, the Leo/Lions Club, the Jaycees, Rotary Club, Scouts, Boys Brigades, Girls Guides, Optimist Club, Anglican Young Peoples Association (AYPA), Pathfinders Association, Business and Professional Women (BPW) and the local media.

Saint Kitts and Nevis are also members of the Caribbean Conservation Association (CCA), a regional non-profit organization dedicated to promoting policies and practices which contribute to conservation, protection and wise use of natural resources. The Caribbean Natural Resources Institute (CANARI), formerly the Eastern Caribbean Natural Area Management Programme (ECNAMP), also supports Saint Kitts and Nevis in its goal to strengthen local capacity to manage the living resources critical to development in the Caribbean region.

The National Environmental Action Plan (NEAP) analyses the environmental issues affecting Saint Kitts and Nevis in a comprehensive, multisectoral framework and sets forth a long-term strategy for maintaining the country's natural environment, the health and safety of its population, and its cultural heritage as economic development occurs. In proposing practical measures to forestall or remedy environmental problems, the analysis considers cross-sectoral links that affect renewable and non-renewable resources, as well as human activity. The objective is to set forth a long-term national environmental policy and investment strategy based on comprehensive environmental analysis.

Like other small OECS countries, Saint Kitts and Nevis faces substantial environmental challenges with limited managerial and technical resources to meet them. Hence, the national environmental priorities have to be carefully determined and the available resources, including those that can be marshalled through aid, used to maximum advantage.

The Government also intends to build on the existing legal foundation to complete the legal and regulatory framework for environmental management through the promulgation of implementing regulations for existing legislation, the adoption of legislation requiring environmental impact assessments for all major public and private sector investment, and the revision of major laws such as the Public Health Act.

Actions to be taken to develop institutional capacity include (a) strengthening the technical capacity and increasing the financial resources of the National Conservation Commission; (b) developing the environmental role of the Physical Planning Unit; and (c) improving the capacity of all Ministries with environmental responsibilities.

One of the major problems being faced is that there are not sufficient or updated laws or regulations in existence that deal with combating desertification. And for the laws that do apply, there is a lack of enforcement.

The National Conservation and Environmental Protection Act (NCEPA) 1987 provides some protection. It has been discovered that there is a severe shortage of legal draft personnel to prepare to prepare regulations for making the Act more useful. Here the National Conservation Commission, which is provided for under the NCEPA Act, needs to be strengthened.

The Federation of Saint Kitts and Nevis is not yet in a position to present to the Conference of Parties a fully developed National Action Programme. Our Government will take a planned approach, however. And it will be a fully integrated approach, along the lines set out by the Convention.

SAINT LUCIA

Saint Lucia is an independent small island developing State situated in the Eastern Caribbean with an area of 616 sq. km. and a population of 147,180 (1996 Census). Saint Lucia became independent in 1979. It is situated between latitudes, thirteen degrees (13E) and fourteen degrees (14E) north and longitudes, sixty degrees (60E) and sixty-one degrees (61E) west. It is located on the submerged ancient volcanic ridge connecting Martinique in the north to Saint Vincent and the Grenadines in the south. The island is monolithic, comprising one main island with only a few nearshore satellite islets. The island is mountainous with a very narrow coastal strip. Most of the important towns and villages are located on the coast.

There are two climatic seasons based on rainfall: a wet season that extends from June to November, and a dry season occurring between December and May. In recent times, this distinction in season has not been clear-cut. Average annual rainfall ranges from 1,500 mm in the northern and southern extremities to 3,500 mm in the wet mountainous regions.

More than 50 per cent of the population lives in the two northern districts of Castries and Gros Islet. With a population density of nearly 700 persons per sq. km. in the north, there is cause for concern. Already problems of land degradation are evident.

Nearly 50 per cent of the population is illiterate (1990 Literacy Survey). Of that percentage, 18.7 per cent was discovered to be functionally literate. The percentage of females receiving an education remains higher up to pre-university and then falls off sharply at the university level.

In 1997, the per capita income stood at US$ 2626.7. Over the last five years, the economy showed signs of slowing down. This can be contributed to the difficulties that the banana industry is encountering with regards to the adjustments being made in the light of trade liberalization. The decline in the banana industry would have had greater negative impact on the economy were it not for the increase in growth in the tourism sector. The Government of Saint Lucia's (GOSL) policy is to transform Saint Lucia into a service economy. If this is to happen, the natural resources of Saint Lucia, that is a major component of the product to be marketed, must be preserved.

In 1996, the GOSL officially reported that the unemployment rate was shown to be 16.7 per cent. A breakdown of the unemployment statistics was not available, but it can be safe to assume that the majority of the unemployed is young people below the age of 34 years. There are short-term programmes to address this malaise. Notable among them are the Short-Term Employment Programme (STEP) and the Greening Project run by the National Conservation Authority (NCA).

Saint Lucia's major environmental issues include:

- Deforestation;
- Solid and liquid waste management;
- Unplanned development;
- Natural disasters;
- Squatting (for housing and agriculture).

To understand these issues, one must examine the underlying causes. These can be grouped as: Physical, Socio-Economic, Cultural and Educational. For instance, deforestation can be induced by man or can be natural. The mountainous nature of the island and the characteristic of the sub-soil in some regions induce landslides that cause severe damage to the environment.

There is also no legal framework for the management of agricultural lands in Saint Lucia. This is an area of great concern for the protection of the physical and agricultural environments. The situation is complicated by the fact that a significant percentage of the agricultural lands in Saint Lucia is family owned. Saint Lucia still uses the Napoleonic code in which all family

members can lay claim to the land. Family lands are, therefore, greatly fragmented. In cases where a single member of the family farms the entire farm, the type of farming does not always reflect what the farmer thinks is best for the management of the farm. In most cases, he or she opts for short-term crops and livestock that may not be appropriate for the area.

However, some Legislative Instruments are currently in place to address the issue of land degradation; some of which need strengthening while others need to be put in place. In 1991, a review of the Environmental Laws of the Commonwealth Caribbean conducted by the Caribbean Law Institute (CLI) noted that the legislative infrastructure in Saint Lucia for environmental management is, for the most part, outdated and inadequate to cope with current problems, especially those associated with conflicting demands for land use and development. However, the Caribbean Law Institute report did mention that commendable efforts have been made to protect and preserve national biodiversity by acceding to relevant international conventions and implementing their provisions by domestic legislation. What remains is the enforcement of these laws and regulations.

Agriculture and construction (roads and housing development) are the main causes of land degradation in Saint Lucia. Areas that are most affected are those where intensive agriculture is practised. Land degradation occurs in agricultural areas mainly due to indiscriminate deforestation, shifting cultivation and inappropriate soil and water conservation.

On 2 July 1997, Saint Lucia signed the Convention to Combat Desertification. The Permanent Secretary of the Ministry of Agriculture, Forestry, Fisheries and Lands acting as a legal authority for the Government of Saint Lucia assigned the responsibility for implementing the obligations of the Convention to the Department of Forestry. Although the Focal Point for the Convention was established, there was neither staff nor a budget to perform its obligations under the Convention. In March 2000, a National Coordinating Committee (NCC) was formed and soon after, a national consultation was held to provide guidance to the NCC for the formation of a National Action Plan (NAP).

At the national consultation, participants came up with a road map for the development of the NAP. The following were the areas addressed:

- Methodology and Process for Preparation of the National Action Plan;
- Participation and the Participatory Process;
- Funding Mechanisms and Resource Management;
- Legislative Framework and Mechanisms for Coordination of Implementation of the Convention;
- Strategies towards the development of a National Action Plan.

They also came up with several planned activities for the NAP. These included:

- Integrated Development Planning;

- Draft Land Use Planning Act;
- Environmental Impact Assessment Act;
- Building code and guidelines;
- Development of policy for national land use;
- River bank stabilization project;
- Soufriere area action plan;
- Nature Heritage tourism ' Soufriere Management Plan;
- Saint Lucia Rural Enterprise Project;
- Programme for the Regularization of Unplanned Development;
- Development of management plans for protected areas.

Although the Focal Point was not operational until recently, work in protecting the environment was being conducted by several agencies, albeit, uncoordinated. For Instance, the Ministry of Agriculture, Forestry and Fisheries (MAFF) conducted routine soil and water conservation programmes; the Forestry Department carried out major watershed restoration projects post Tropical Storm Debbie. There are also activities being conducted by other agencies of governmental and non-governmental organizations. Saint Lucia is part of a regional project to put in place a National Environment Strategy. This initiative is coordinated by the Organization of the Eastern Caribbean States (OECS). There is also the Au Picon co-management project that is coordinated by the Caribbean Natural Resource Institute (CANARI). Saint Lucia has participated in four regional activities related to the Convention. Emanating out of those meetings was the formation of the Group of Latin America and the Caribbean (GRULAC). The Group has been instrumental in putting in place a network to exchange information. Saint Lucia has participated in this exchange. As to the other groupings, for instance, DESFLAC, Saint Lucia has not participated. Neither has Saint Lucia made any contributions to the budget of the Regional Coordinating Unit in Mexico.

Finally, the GOSL wishes to place on record the tremendous support given to it by the secretariat of the UNCCD in assisting it to meet its obligations under the Convention. It is in this light that the work of United Nations Consultant, Philbert Brown's work, in assisting in the preparation of the National Consultation, can be viewed as invaluable.

SAINT VINCENT AND THE GRENADINES

For the purpose of this Convention, Saint Vincent and the Grenadines will focus on land degradation as opposed to the extreme case of desertification. Because of its equatoral location and its legal/political history, some indigenous forest cover still remains. How long this forest

would be able to supply the needs of Vincentians will depend on the extent to which the United Nations Convention to Combat Desertification and Drought is implemented. Loss of the forest translates into loss of water, biological diversity and sustainable livelihood. For this reason, much of this first report is centred on deforestation. The report is not exhaustive or conclusive but rather instructive for life in Saint Vincent and the Grenadines.

Both new and existing economic developmental activities have severely impacted forest cover in Saint Vincent in a negative way. Unemployment, poverty and the desire for extravagant life styles have compromise the integrity of the forest and threaten Vincentian existence.

The smaller islands of the Grenadines are less fertile and semi-arid. These islands are therefore prone to desertification. Traditional life-style practices have not been kind to these islands and although they boast of white sand beaches, an asset to the tourism industry, their development remains an uncertainty. Lack of surface water limits development to the extent that life on these islands revolves around the fragile coastal resources.

The experimental approach to environmental resource management sets the National Environmental Advisory Board at the centre of management. The body monitors environmental activities and recommend policy direction and alternative approaches. There are several practical applications to this approach. Most important, it brings a holistic approach to environmental management rather than the piece-wise approach characteristic of sectoral management. This management strategy is supportive of synergies and helps to strengthen overarching themes.

The various forest management and restoration projects shared around the Caribbean is evidence of an awakening of consciousness in the region. The departments of the various government ministries in the Eastern Caribbean charged with the management of the forest are concerned with the loss of biodiversity and the degradation associated with improper use and inappropriate agricultural technologies employed in the watershed. Wanton destruction of forest is manifested in the many sediment plumes extending for miles offshore. The landslides which occur with disastrous effects such as the Gibson Corner (southwestern Saint Vincent) experience speaks of unsound human interactions with the environment.

Public awareness must be encouraged at all levels of the society through consultative dialogue and discussion of the issues. The awareness must stretch beyond knowledge to an active sharing of the regulatory function of management. Any national action plan must strive to address the critical issues of:

(a) Soil conservation;

(b) Improved Agricultural Technology;

(c) Land tenure;

(d) Reafforestation;

(e) Support for NGOs; and

(f) Land Use Planning.

Such an effort would not be devoid of challenges and must therefore be underpinned by a commitment to reduce and mitigate land degradation. The approach does not necessarily ensure sustainability but reflects considerable optimism and the belief that land degradation can be traded for a productive lifestyle.

URUGUAY

The Oriental Republic of Uruguay is situated in the mild region of the South-eastern part of South America. The borders are: Federative Republic of Brazil at North and East, Argentinian Republic at West, the River Plate at South and the Atlantic Ocean at East.

The territory is politically divided into 19 departments. Spanish is the official language of the country.

The population of the country, according to the last census (1996) is 3,200,000 people distributed as follows: 48 per cent males, 52 per cent females with regional heterogeneity. The increase of the annual rate of the population is 0.64 per cent corresponding to the period 1985-1996.

Important urban centres can be found lengthwise the coast. Among them, Montevideo, in the Northern bank of the River Plate, is the capital of the country.

The coast area houses approximately 70 per cent of the total population.

Uruguay is not free from the emigration process country/city which has been seen in the continent, existing a remarkable macrocephalism in the urban centres which house 90 per cent of the population.

Uruguay has a republican, democratic and presidentialist government. The official education system gives secular, free and obligatory teaching. Besides this there is private teaching at different levels: primary, high school and university.

In spite of the fact that there is freedom of worship, the Catholic religion prevails in the population.

The agricultural sector plays an important role in the national economy and there is an important part of the country involved in its activities establishing a sector of historical and economical significance.

Wheat, rice and barley are the principle cultivations of the country. The management of the land is done by the means of rotation of crops with pastures for bovine cattle and sheep. Uruguayan meat and wool production, recognized all over the world for its excellent level of quality, is performed by natural pastures with slightest supply of rations.

The weather is mild, prevailing the winds from the Northeast with defined periods: winter and summer and intermediate seasons. Rainfall is irregular and changeable during the year. The natural risks are related to climatic events (droughts, floods, freezes).

Uruguay, together with Argentina, Brazil and Paraguay, makes up the Common Market of the South (MERCOSUR). The 48 per cent of exports of the country and 44 per cent of 1996 imports, were made within this common market. The subregional integration goes beyond the financial and commercial aspects because the unification includes education, justice, energy, environment, social security, labour affairs, health and migration too.

Desertification is considered a complicated process in Uruguay, which appears in the whole ecosystem. Due to different natural and/or antrophic causes lose productivity. The final result are decreasing levels in the biological potential of the ecosystem with the resulting deterioration in the life quality of different social groups related to its exploitation.

The land degradation takes place in the more fertile ones where the agricultural activity is concentrated and where erosion can be the first step in a virtually irreversible desertification process.

The principle consequences of these degradation processes are represented by the loss of productivity of the land, impoverishment of medium and small rural producers, rural depopulation and land abandoning. As an example, the areas with bigger problems of erosion show the highest rates or rural emigration (Northeast of Canelones).

The erosion of soils is considered one of the most serious problems related to natural resources in Uruguay. There is a considerable evidence of this phenomenon, based on the studies of magnitude and location. A 30 per cent of the national territory and more than the 80 per cent of the arable soil, are being affected by different stages of erosion.

The principle causes of soil degradation in the country are related to the land possession problem (temporary possession), dimension of the farms (high number of medium and small producers), bad management of the resource (monoculture, overshepherding, inadequate plowing). The regulation of the Law for the Preservation of Soils and Waters (law 15.239) has been a very important step to control erosion. This law establishes the technical rules for preservation of soils and waters with agricultural purposes and the recovery of eroded soils, entrusting the General Direction of Renewable Natural Resources of the Ministry of Livestock, Agriculture and Fisheries, the coordination and direction of activities for the use and preservation of soils.

VENEZUELA

The national report has been structured in two main parts: the first one with the introduction and the methodology. The presentation of the country, the points of view about the erosion problem and The United Nations Convention to Combat Desertification (UNCCD) and methodology aspects are included in this part. The second part is conformed by seven central

chapters, where the results of national consulting processes are expressed, according to previous and future experiences and commitments that in fact aboard the application of the Convention in Venezuela.

Introduction

Divided into six sections presenting some ideas, one of the initial ones is the evolution of life in the planet from water to earth; the attitudes of the world population toward the environmental problems being one of them the erosion of the soil as an initial degradation process of the land, where is relevant the identification of the actions and conditions that produced them.

The historic evolution of the territorial area, from pre-Columbian time till today. The agriculture production of the national history, the beginning of the commercial boom of the oil industry in 1922, the military and political facts that affect the social, economical and environmental conditions.

The natural-physical dimensions, where each Natural Region is described and classify according to its natural restrictions, potentialities and some human, social and economical conditions.

The reports objectives are: to present the situation of the deserted areas in the country, the convention goals, the past actions in fighting the erosion and degradation of the soil problem and the future action to apply.

Venezuela enters the Convention in 1998 after studying and getting involved with the instrument, particularly understanding the desertification problem since 1995. Been this a development problem that requires inter-institutional and multidisciplines efforts, the defence of the vulnerable ecosystems and the community participation.

Venezuela's vision upon the Convention goals. Its purposes is to expand the zone where it reaches (arid, semi-arid, sub humid-dry) toward more hummed zones or areas that are also in degradation of the soil and poverty of the population.

The natural disaster of December 1999 in almost the totality of the north-central area of the country showed that an atypical climatic variation can cause a big natural and social disaster when the occupational rules of the territory are violated, specially when the prevention and conservation of the hydrographic basing are not respected.

Methodology

The basis of the preparation of this report are the participation and national consult of distinguish actors involved in the matter. The eight faces can be summarized as following:

- A workshop ministerial and interministerial to designed the questionnaire that would collect the information needed to elaborate the report with the assessment of the international assessor of the Convention;

- 120 questionnaires were delivered to private enterprises, governmental and non-governmental organizations, environmentalist and technical cooperation agencies;

- Analysis and synthesis of 50 answers received;

- The designed of the seven sketches for the questionnaires;

- National workshop for the designed and assessment of the main chapters;

- The final designed of the chapters of this national report;

- Mailing the total report to the Secretary of the German Convention through the Chancellery.

Chapter I: Development of variables and bases (diagnostic)

Evaluation and diagnostic of previous experiences, in the national, regional and local areas. First of all 20 twenty works were identified in the environmental area of the natural resources in degradation of soil and grounds in the territory.

First of all is very relevant the support of the Ministry of Environment and National Resources in two big main programmes and projects: The National Inventory of Soils and Grounds and The Environmental Venezuelans System. It is also good to mention the support of other national institutions such as Agriculture National Research Center (FONAIAP), The Venezuelan Guyana Corporation (CVG), The Venezuelan Foundation Of Seismological Research Center (FUNVISIS), and some specific publications in this area build the National Cardinal References.

In local and regional levels, two great sources have contributed to the general environmental knowledge and degradation of the soils, one is the universities, such as Yacambu Lisandro Alvarado University, Francisco de Miranda University, Táchira University, Venezuela Central University, the Inter American Center of Development and Environmental and Territorial Research (CIDIAT). And the public institutions MARN; FONAIAP; PIDZAR Project; IPIAT; and Palmichal enterprise.

Chapter II: Evaluation processes

Evaluation processes involved the supervision of the field actions and the management to guide the programmes and projects.

Institutional development for the elaboration of the indicators. A list is made with the most common indicators of environmental and agricultural use in order to know the facts of the environmental states and the institutional performance. It is important to mention that the Venezuelan Environmental Balance 1994-1996 named Health was consulted.

Methods to integrate the actual mechanisms and systems. It is formed by two programmes of the ministry: Management and Conservation of Basing; through the control and checking system plans.

Mechanisms of early alert for possible dryness. The VENEHMET Project should be constituted in the near future, over the angular stone itself; due that Venezuela is a country historically affected for long periods of dryness, that affect the standards of life, public services and agricultural production in general.

Environmental economy. This discipline has not been approached by the MARN, but not so in the universities and The Polar Foundation.

Chapter III: National plans and strategies for the convention support

Venezuela has not formulated a clear and explicit policy on desertification neither on the state environmental policy nor its direct instruments.

Legal juridical instrument system needs to be modified and actualized according to the new constitution of 1999. The Environmental Organic Code is under discussion on this moment and it will allow the ruling of the legal instruments.

National plans, strategies and other supporting instruments to the Convention. The most important are: The national Constitution; The National Plan of reorganization of the territory; The National Report to Rio (1992).

Institutional aspects: It is important the need of the reorganization of MARN. As a main instrument of the environmental control, as well as the modification of its organic and internal rulings.

National plans: there is not a new national plan; the previous plans are the bases of the big national and regional projects among them the project of the fluvial basing Apure Orinoco which is fundamental in the decentralization strategies.

Problem of relevant impacts related to the degradation of the soils and desertification. A serious of anthropic actions in the agricultural areas that are degrading the land in the country are named; problems of natural order such as dryness and flows; as well as social-environmental impacts due to urban and rural marginality over the geographic spaces.

Institutional answers: two main lines are important here, The first one are the action of the executed plans of the regional dependencies of the MARN, research centres, private industries and ONG, as well as the formulations of the conservation of the resources and rural development plans in different areas on the country. The second one is the proposal of the integral general development plan which is formed by: National Soil Plant, National and Regional Plan of the management of the hydrographic basing, Agricultural and nourishment National Development Plan, and the national inventory of affective areas by problems of dryness, desertification, degradation of soils are all priority.

Chapter IV: Measurements for the promotion of the environmental conservation, the institutional growth and organization of the knowledge over desertification

Actual programmes and projects. Even there is not a national policy for the problems of the degradation of the lands in Venezuela, some specifics programmes and projects are being developed, some examples of these are Plans and programmes of conservation, management of hydrographic basing project of soil evaluation and planification of its use, conservation and use of the hydra resources of the international basing Carrapia-Paraguachon research programme and projects and the development of arid zones among others.

New actions and prevention. This are the ones we need to enhance the fight against the desertification of a country. Among the most important we can find: the elaboration of the national programme, training of the special technicians, coordinated programmes according to the Desertification Convention, biodiversity, climate change, reactivation of the conservation programme of the soils, actualization the degradation state of the Venezuelan soils.

The environmental education. Through the last 30 years the national programme called Foundation Gran Mariscal De Ayacucho, plus the help received from CIDIAT have prepared technical and scientific professionals which reinforced the institutional capacity needed for the environmental conservation and the increased knowledge over desertification the continuity of this actions are needed to improve the decentralization of the public administration and the MARN.

Reinforcement of the institutional and local capacities. In this areas we have the knowledge and the experience needed to identify possible solutions to the environmental and socio-economical problems. The tradition of decentralization in this country is really short and the results are far from being beneficial in particular with regard to the processes and legal support. Being this the main reason for the need of the reorganization, The MARN have had the tendency of reinforcing the regional performance.

Chapter V: Institutional measures

The Main national point and the national coordination instrument. The first one is represented by the ministry of International Relationship, through its department of environment, and the next one by the General Direction of Hydrographic Basing in Coordination with the international cooperation department both from the ministry of environment and national resources which is the one in charge of the things related to the environment in general. Coordinator of the action, public consulting, and participate and integrate the different facts; public, private, Scientific and the organized society.

Coherent and functional institutional frames to control desertification. The priority assigned by MARN and CLD goes through two actions: Improve the coordination mechanisms through the formation of an inter-institutional committee and the internal group MARN. On the other hand by the development of the PAN through which the technical professionals with experience could guarantee the exchange of relevant information and look for political and financial support from the national government and the international agencies of cooperation.

Regulating and legal frame. The MARN is now going through a process of revision of the fundamental environmental dispositions in concordance with the new national constitution approved in 1999.

Chapter VI: Participative process

Participative methods. The participation of all the citizens is fundamental in the fight against the desertification. The women should play a protagonic roll guaranteed by the new constitution. The Environmental Educational Programme formal and informal, the consciousness campaign The Environmental Educational research projects integrated all the methods.

Identification of national priorities by the representatives of different sectors. The identified sectors where group of volunteers, public and private enterprises, students, housewives and consultants among others.

Information and communication. There is a different variety of media that allows to spread the information about desertification: meetings, workshops, conferences, oral expositions, congresses, agricultural and environmental extension expressions.

Local and regional population interest. Evaluation of the consults results. The needs of the population of the arid, semi-arid and subsumed areas are the following: domestic uses, for watering field managing the hydra resources a development plan to fight poverty and creating new sources of employee development alternative systems, to make the soils productive basic services, to control the natural tendency of the soil.

Chapter VII: Financial contributions of the national budget and international support

For action in order to fight against desertification there are not financial contributions so far. There are two basic sources of financial help, the ones going to research institutions coming from (CONICIT) and (FUNDACITES). The other source is the centralized national public administration and the decentralized ones.

Processes for the mobilizations of the internal resources: Through the elaboration, studies, projects, executions of buildings equipment supply, etc. But, the strategies for giving financial support have not being developed so far creating the inefficient use of the economical resources, wasting of time and human effort.

Identification of financial requirement available resources and establishing priorities. The needs identified were quantification of the desertification problems education and consciousness, institutional reinforcement.

International support. There is a very little experience on this matter in this country. We are just submitted to be send to assessor meetings an evaluation of their results. There is no clear policy that let us identified the financial and administrative mechanisms as well as how to access to that cooperation.